

# EMERGENCY MANAGEMENT IN

# PUBLIC ADMINISTRATION EDUCATION

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This is another in a series of monographs on the subject of emergency management. The purpose of this series is to share new ideas and information in the field of emergency management. The content does not necessarily represent either the policy or the opinion of the Federal Emergency Management Agency.

#### ABSTRACT

This monograph is the third of a series intended to supplement existing training and research documents in certain aspects of emergency management. This monograph also provides information and practical assistance to administrators and faculty members wanting to incorporate emergency management into a formal university degree program of public administration.

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# PREFACE

Many public officials have embarked on their careers with a significant lack of knowledge on how to deal with major natural and technological emergencies. As a result of a conference on Emergency Management in Public Administration Education, held at the National Emergency Training Center in Emmitsburg, Maryland, methods were examined as to how the subject of emergency management could become part of public administration education. The Office of Programs and Academics, which contains the Senior Executive Policy Center in the Federal Emergency Management Agency, developed a monograph to determine: 1) what curricula exist on the subject of emergency management and public administration; 2) what literature exists that could be used in supporting course work on emergency management in public administration; and 3) who are the current faculty members teaching and doing research in emergency management at colleges and universities.

Essentially, no courses specifically addressed emergency management in public administration and those that related to this were found in departments of sociology and urban affairs. This monograph presents a curriculum package of course outlines with supporting bibliographies for each course in five subject areas: 1) an overview course on emergency management in public administration; 2) public policy in emergency management; 3) intergovernmental relations and emergency management; 4) planning and emergency management, and 5) public management, finance and liability in emergency management. The course outlines are primarily designed for graduate level seminars leading to a masters degree in public administration. The monograph also concludes with a list of experienced faculty who have teaching and research experience in emergency management. Most faculty are in the fields of sociology, planning and policy studies and not public administration.

The bibliographies and course outlines are intended to support further course development and assignments in this subject area and serve as a base for further research. The listing of documents was limited to those most pertinent to emergency management and public administration. The underlying assumption in developing this type of curriculum package for public administration courses is that improved awareness, knowledge and training of future government administrators and community leaders will better enable them to respond to disasters and reduce the loss of life and property. The Senior Executive Policy Center continues to sponsor conferences and monographs that examine key policy issues such as liability and hazardous materials, to serve those persons wanting to do further research in the field of emergency management.

# EMERGENCY MANAGEMENT IN PUBLIC ADMINISTRATION

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#### EMERGENCY MANAGEMENT IN PUBLIC ADMINISTRATION EDUCATION

## Introduction:

In July 1983, a conference on Emergency Management in Public Administration Education was held at the National Emergency Training Center in Emmitsburg, Maryland. The National Association of Schools of Public Affairs and Administration (NASPAA) co-sponsored this conference with the Federal Emergency Management Agency (FEMA). The Office of Programs and Academics, which contains the Senior Executive Policy Center in FEMA, produced the conference report. (Conference Report, "Emergency Management in Public Administration Education Conference", June 3 - 24, 1983; available from FEMA.)

Many public officials have embarked on their careers with a significant lack of knowledge, training, and planning and management capability to deal with major emergencies and disasters. The July 1983 conference was an initial step in the process of determining how emergency management as a subject could become part of public administration education. Using the results of that conference, this monograph addresses three main areas of interest, namely:

- 1. What curricula exist on the subject of emergency management and public administration?
- 2. What literature exists that could be used in supporting course work on emergency management in public administration?
- 3. Who are the current faculty members teaching and doing research in emergency management at colleges and universities?

In the following chapters, general guidance as well as specific information will be provided to persons preparing to introduce emergency management in existing public administration education. What follows are: 1) five course outlines on emergency management in public administration; 2) a literature base; and 3) a list of faculty teaching or conducting research in this subject area.

Before proceeding to the specific course materials provided in the following chapters, it would be useful to review the Conference Report cited previously for a better understanding of the related course curricula currently being offered at some schools of public administration. For example, some universities offer courses in Environmental Risk Assessment or Natural Hazards and Planning. Most of these courses were in departments of sociology or geography with only a few in departments such as public administration, city and regional planning or political science. No course specifically addressed "emergency management" in public administration.

In developing the new course outlines for emergency management in the context of public administration, the major objectives were to (a) address how administrative systems in local, state and Federal levels of government respond to emergencies; (b) select literature on intergovernmental relations relating to disasters; and (c) provide curricula to educate public administrators on how to handle emergencies and avoid jurisdictional "turf wars" that hinder everyone's

ability to repond to disasters. The underlying assumption is that improved administrative response by governments during disasters will reduce the loss of life and property.

The course outlines presented below are designed for graduate level instruction; however, these courses can be modified to fit undergraduate level teaching. Further these outlines can be used separately or as part of a series. This curriculum package also serves as a point of departure for faculty wanting to further develop or refine this material to fit their respective university and mix of students.

The first course offered is an overview course of instruction entitled "Emergency Management in Public Administraton" (Section 2). This course covers the key features and issues in emergency management. It is designed to provide a person with the essential elements in emergency management as they pertain to the public administration field.

Separate from the overall course are four other courses: Public Policy in Emergency Management, (Section 3); Intergovernmental Relations and Emergency Management, (Section 4); Planning and Emergency Management, (Section 5); and Public Management, Finance and Liability in Emergency Management, (Section 6). Each course lists required texts and recommended readings. An instructor may want to make changes to best fit the students' backgrounds and the instructor's or university's objectives. Each course outline contains a statement of objectives, a proposed plan of instruction and course designed using an intensive seminar session of three or four hours' duration. For each course, participants will prepare a two-to-five page paper prior to each session and will distribute copies to their colleagues as well as the instructor. Also, one comprehensive research paper will be assigned in each course. The findings are to be presented and defended during the final session.

The following bibliographies are meant to provide guidance; they are not exhaustive listings of all relevant materials on a given topic. The materials selected are those germane and most readily available. The readings and texts suggested are of fairly recent publication to ensure that they are in print and can be obtained by writing the publisher. The listing of readings does not include highly technical or specialized reports which may not be pertinent to the general interests of the students or are difficult to obtain. Yet many technical analyses, specialized reports, and after-action reports do exist for many major disasters that have occurred; they may be of considerable value and should be considered, as appropriate. Literature in the emergency management field is especially hard to track down because it comes from a wide variety of sources, tends to be produced in very limited quantities, and few central depositories exist.

The bibliographies included in this monograph are intended to support the written assignments and provide a base for further research. The selection of documents to cite was limited to those most pertinent to emergency management and public administration. Many references contain case studies, such as Claire Rubin's work. Most of the case studies included can be found in the bibliography for the Planning and Fmergency Management course. Selected journals, monographs and other research reports should not be overlooked as sources of instructional material. See Appendix 1 at the end of this section, for detailed suggested sources. Additional sources of useful information are General Accounting Office

reports, reports from the National Science Foundation, numerous monographs and reports from the Disaster Research Center at Ohio University and a forthcoming (Fall of 1984) special issue on emergency management in the <u>Public Administration</u> Review.

The concept of Integrated Emergency Management System (IEMS) currently being promulgated by FEMA (in guidance documents issued by the State and Local Programs and Support office) should not be overlooked in the process of developing and teaching the courses outlined. IEMS stresses an integrated approach to management of emergencies across the full spectrum including natural disasters (such as tornadoes, hurricanes, floods, and earthquakes); technological disasters (such as explosions, release of hazardous materials, accidents involving radiological materials, and possible nuclear power plant accidents); resource shortages; and possible attack.

IEMS is in the early phase of a multi-year development process. Since FEMA is preparing numerous issuances on IEMS, and distributing each one as it becomes available, it is essential to keep up-to-date on IEMS at the time of course preparation. For future information, check with staff in the Office of State and Local Programs and Support (SLPS), in the FEMA Washington or Regional offices.

Finally, a list of faculty is offered (Section VII) to provide contacts with experienced teachers and researchers in the emergency management and public administration fields. The partial listing includes (1) faculty teaching in the field, and (2) those who have conducted relevant research in emergency management. There is some overlap in the two lists because many faculty both teach and conduct research.

A second conference on Emergency Management in Public Administration Education was held in September, 1983 to identify key policy issues that could be studied by the Senior Executive Policy Center in the Office of Programs and Academics at FEMA. That list may provide some guidance to instructors dealing with Public Policy and Emergency Management. The assembled group of practitioners and academics came up with the key policy issues listed below and it may serve as a point of departure for persons wanting to do research.

- LIABILITY ISSUE: the "cloud of uncertainty" regarding personal liability for actions taken by paid and volunteer emergency management personnel must be eliminated.
- INTERGOVERNMENTAL ISSUE: emergency management roles, responsibilities and authorities of participants representing local, state and Federal jurisdictions prior to, during and after emergencies must be clarified and specified.
- NEWS MEDIA ISSUE: to most effectively inform and educate the public about emergency preparedness and response, the news media must be encouraged, educated and assigned.
- MANAGEMENT ISSUE: the management effectiveness of those working in emergency management must be improved through the identification

- and transfer of successful organization and management techniques which may be unique to the emergency environment.
- HAZARDOUS MATERIALS ISSUE: broad attention must be focused on the subject of hazardous materials as a problem in emergency management.
- NUCLEAR FACILITY ISSUE: the interests and concerns of those involved with fixed nuclear facilities are a unique and discrete aspect of emergency management. A special policy conference on the nuclear facility issue would provide needed opportunity for operators, regulators, state and local officials and others to exchange experience and opinions. Thereby the working relationships, the quality of preparedness planning, and local understanding of the nature of such facilities would be improved.
- PUBLIC SUPPORT ISSUE: alternative strategies and tactics must be developed to gain public support for emergency management. Only an aware and informed public will prepare itself for emergencies and support emergency preparedness activities of government.
- RESEARCH AND INFORMATION ISSUE: there is need to improve the interchange between researchers and practitioners concerning research and information about emergency management.
- <u>FUNDING ISSUE</u>: the present system for alleviating fiscal distress resulting from disaster in terms of adequacy, equity, rationality and ease of administration must be reviewed.
- USE OF VOLUNTEERS ISSUE: volunteers are an invaluable resource available to assist in all phases of emergency management. Methods to recruit, train, mobilize and reward volunteers are unknown in most jurisdictions and must be interfaced, evaluated and disseminated.

APPENDIX I

#### APPENDIX I

# Suggested Sources:

- 1. <u>DISASTERS</u>, the International Journal of Disaster Studies and Practice, published quarterly by the International Disaster Institute, 85 Marylebone High Street, London WIM 3DE, U.K.
- 2. EMERGENCY MANAGEMENT REVIEW, National Coordinating Council on Emergency Management, 3126 Beltline Boulevard (#101), Columbia, S.C. 29204.
- 3. HAZARD MONTHLY, Research Alternatives, Box 34408, Bethesda, MD 20034.
- 4. INTERNATIONAL JOURNAL OF MASS EMERGENCIES AND DISASTERS, Disaster Study Groups, Uppsola University, P.O. Box 513, S-751 20 Uppsola, Sweden.
- NATURAL HAZARDS OBSERVER (bi-monthly), Natural Hazards Research and Information Center, IBS#6, University of Colorado, Campus Box 482, Boulder, CO 80309.

#### EMERGENCY MANAGEMENT IN PUBLIC ADMINISTRATION

## COURSE OUTLINE

# Required Texts:

- (1) Natural Hazard Risk Assessment and Public Policy: Anticipating the Unexpected. William J. Petak and Arthur A. Atkisson, Springer-Verlag, New York 1982.
- (2) Managing Multiorganizational Emergency Responses. Thomas Drabek, Harriet Tamminga, Thomas Kilijanek and Christopher Adams, University of Colorado (IBS #6), Boulder, CO, 1981.
- (3) A Primer for Preparedness for Acute Chemical Emergencies. Kathleen J. Tierney, Disaster Research Center, Ohio State University, Columbus, OH, 1980.
- (4) National Hazards and Public Choice: The State and Local Politics of Hazard Mitigation. Peter Rossi, James D. Wright, Eleanor Weber-Burdin, Academics Fress, New York, 1982.
- (5) Disaster Planning: Preservation of Life and Property. Harold D. Foster, Springer-Verlag, New York 1980.

#### Recommended Readings:

- (1) Conquering Disaster. Thomas Drabek and William Key, 1984.
- (2) Reconstruction Following Disaster. Eugene Hass, Robert Kates and Martyn Bowden, University of Colorado (IBS#6) Boulder, CO, 1977.
- (3) Interorganizational Coordination. David Rogers, Iowa State University, Ames, Iowa, 1982.
- (4) "When Disaster Strikes (It Isn't What You've Heard and Read About)," E.L. Quarantelli and Russell Dynes, <u>Psychology Today</u> 5:9 (February, 1972): 66-70.
- (5) General Accounting Office, "National Flood Insurance," (GAO/CED-82-105) (August, 1980).
- (6) General Accounting Office, "National Flood Insurance," (GAO/RCED-83-53) (January, 1983).
- (7) Federal Emergency Management Agency. <u>Disaster Operations</u> (CPG 1-6), 1981.
- (8) "Jackson Flood 1979: Public Policy Disaster," Rutherford H. Platt, American Planning Assoc. Journal, (Spring, 1982), pp. 219-231.

#### Emergency Management in Public Administration

# Introduction:

This course is designed for graduate-level study leading towards a masters degree in public administration (MPA). Although designed for graduate-level study, this course can be modified (as appropriate) to complement undergraduate programs in public administration.

Intended as an "OVERVIEW COURSE" designed to address key features and issues in emergency management, the purpose of this course is to provide an understanding of the essential elements of emergency management as they relate to the field of public administration.

As a graduate-level course, an appropriately thorough examination of research relevant to managerial strategies in emergency management is expected. Also expected is a comprehensive review of the state-of-the-art in prevention, warning, evacuation, rescue and recovery systems.

The required and recommended readings focus on providing an understanding of:

- Intergovernmental relations that typically occur during and after major disasters;
- 2. The existing need to avoid "turf wars" over who (agency or entity) is in charge during a disaster;
- 3. The development of public policy as it relates to land use planning, recovery, and issues of liability; and,
- 4. The importance of effective planning to aid communities in responding to and recovering from disasters.

The readings and materials are intended to provide assistance in determining how an integrated emergency management system can be used.

The underlying assumption throughout this course is that "improved administrative response by governments before, during and after disasters may reduce loss of lives and damage to property."

#### Objective(s):

A primary course objective is to provide an understanding of how governments plan for and respond to natural and man-made disasters.

#### Format:

This course can be used separately or as part of a series of classes with appropriate modification.

Eleven intensive seminars of two-to-four-hours' duration comprise this course.

A four-part bibliography is provided to assist seminar participants in the development of written assignments and to provide a basis for further research.

The bibliography is organized as follows:

- 1. Public Policy in Emergency Management;
- 2. Intergovernmental Relations and Emergency Management;
- 3. Planning and Emergency Management with Case Studies; and
- 4. Public Management, Finance and Liability Issues in Emergency Management.

These bibliographies address major policy issues and alternatives related to the specific topical areas referenced above and are intended to assist seminar participants in the development of written assignments. Also, the bibliographies serve as a basic point of departure for further research on emerging policy issues and specific policy decisions in Emergency Management. The on-going assessment of new literature is encouraged.

Prior to each session, seminar participants are required to prepare a two-to-five-page summary of selected readings using the appropriate bibliography. These papers are to be duplicated and disseminated to seminar participants and the instructor. Each participant is expected to present an overview of relevant findings and to defend salient points addressed.

In addition to the above requirements, each seminar member is required to develop a 15-20 page comprehensive research paper on either an emerging policy issue or a specific policy decision. The specific focus of the research paper will be determined by the instructor. The paper is to be analytical and not solely narrative or speculative. As a minimum, the final research paper should:

- 1. Contain a clear problem statement;
- Identify key actors (e.g. proponents and opponents) and their positions;
- 3. Provide an outline of the alternatives and consequences of the policy issue/decision;
- 4. Contain an assessment of decisions made; and,
- 5. Critically assess the degree of success in implementing the policy issue or decision.

After initial lectures, the instructor serves primarily as a discussion leader and resource person. Depending on appropriateness and availability of resources, films, guest speakers, simulations, case studies and field trips may be used to complement instruction.

### Evaluation:

Performance evaluation of seminar participants shall be based on the quality of (a) written assignments; (b) weekly presentations summarizing reviews of selected or assigned literature; and, (c) the comprehensive research paper and its defense during the final seminar session.

Evaluation criteria for assessing written assignments include: (a) the quality of research design; (b) writing; (c) organization; and (d) presentation/defense of research papers. A final factor used in assessing performance is the quality of each person's participation in seminar discussions.

## Course Content:

# Session 1. Anticipating the Unexpected as a Focus of Public Policy

Readings: Petak and Atkisson: Chapter 1: Natural Hazards as Public Policy Problems. Characteristics (Assessed as Atkisson)

teristics/Approaches and an Integrative Model

Drabek, et al. Chapters 1

and 2: Introduction and Frame of

Reference. Origins and Insights (Past and Present

Perspective)

Drabek and Rey: Chapter 1: Conquering Disaster

(Historical Perspective)

Rossi, Wright Weber-Burdin

Chapter 1: Policy, Politics and Hazards

Assignment: Decision Making and Public Policy Applications

Using the "Public Policy in Emergency Management" bibliography as a point of departure, select an article on decisionmaking and policy applications.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 2. Public Policy and Natural Hazards: Characteristics and Mitigations

Readings: Petak and Atkisson: Chapter 2: Hazard Characteristics

Chapter 3: Public Policy Approaches

to the Management of

Natural Hazards

Drabek, et al. Case Studies

1 and 2: (pages 31 and 57 respec-

tively)

Assignment: Natural Hazards Management: Public Policy Implications

Using both the "Public Policy in Emergency Management" bibliography and the "Intergovernmental Relations in Emergency Management" bibliography, select articles for review and analysis.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 3. Natural Hazard Risk Assessment and Mitigation Analysis

Readings: Petak and Atkisson: Chapter 4: Methodologies for Hazard

Analysis, Risk Analysis, Cost Analysis and Social

Impacts

Drabek, et al. Case Study: An Afternoon of Destruc-

tion pp. 93-114.

Handouts: The Role of the Federal Emergency

Management Agency (FEMA)

Intergovernmental Issues

Assignment: Natural Hazards Mitigation Strategies

Using both the "Public Policy in Emergency Management" bibliography and the "Intergovernmental Relations in Emergency Management" bibliography as a point of departure, select additional references for review and analysis.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 4. Natural Hazard Exposure and Loss Analysis

Readings: Petak and Atkisson: Chapter 5: Hazard Loss Effects

> Federal Liability for Natural Hazard Losses

Interstate Tax Transfers produced by Federal Liability for Natural Hazard

Losses.

Rossi, Wright, Webber-Burdin:

Chapter 3: How Important Are Natural

Hazards Problems to State

and Community Elites?

Chapter 4: Elite Support Levels for

Federal Disaster Policy

Alternatives.

Chapter 5: Popular Assessments

> Hazards and Hazards Policies: The Case of California's Nine Communities.

Drabek, et al. Case Study: Tornado. (pp. 115-136)

> Organizational Participants and Network Stabil-

ity.

Drabek, et al. Case Study: Hurricane of the Decade,

(pp. 137-160). Focus:

Perceptions of Performance.

Assignment: Hazard Policy Liability Issues: Federal, State and Local

Perspective

Using the "Intergovernmental Relations in Emergency Management" bibliography as a point of departure, select additional references which particularly emphasize decisionmaking and communication or coordination for review and analysis.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 5. Natural Hazard Mitigation Cost and Impacts

Readings: Petak and Atkisson: Chapter 6: Losses and Strategies for

Mitigation/Cost Analysis

and Economic Payoffs.

Foster: Chapter 5: Preventing Disaster

Chapter 6: Disaster Warning System

Assignment: Strategies for Managing Disaster Prevention and Reduction

Using the "Intergovernmental Relations and Emergency Management" bibliography, and the "Planning and Emergency Management" bibliography as a point of departure, select and analyze new articles for review and analysis.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 6. Catastrophic Hazard Occurrences, War, and Civil Defense

Readings: Petak and Atkisson: Chapter 7: Approach to Scenario Devel-

opment and Actual Events: San Francisco Earthquake

Drabek, et al. Case Study: Eruption: Search and Res-

cue Response

Tracing the Emergent Multi-Organizational System and Resource Linkages Among Federal, State and Local

Entities.

Drabek, et al. Part III: Organization and Issues

(pp. 191 - 236)

Policy Issues: Perceptions of Success--Views from Two

States

Assignment: Land Use Management in Hazardous Areas: Regulations and

Risks

Using the "Planning and Emergency Management" bibliography as a point of departure, select and analyze additional

articles. Analyze articles and case studies that emphasize seismic hazards and planning land-use.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 7. Hazard Policy Planning and Administration

Readings: Petak and Atkisson: Chapter 8: Policy Makers, Stakehold-

ers and Candidate Public

Problems

Foster: Chapter 2: Risk and Comprehensive

Planning

Chapter 7: Disaster Plans

Chapter 8: Recovery Process and Recon-

struction

Assignment: Using the "Recommended Readings" and the "Public Policy in Emergency Management" bibliography as a point of departure, select additional references for review and analysis.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 8. Constraints on Managerial Decision-Making During Natural and Man-Made Disasters: Public Policy Implications

Readings: Petak and Atkisson: Chapter 9: Legal Issues, Economic and

Administrative Constraints

Federal Constraints on State and Local Decision-

Making.

Drabek, et al. Part IV Viewing the Forest: Re-

sponse Similarities and Differences, Operational Problems, Legal Issues and Policy Implications for

Emergency Managers.

Platt: "Jackson Flood, 1979: Pub-

lic Policy Disaster"

(pp. 219 - 231)

Assignment: Management of Multi-organizational Emergency Response

Systems: Public Policy Perspective

Using the "Public Policy in Emergency Management" bibliography as a point of departure, select additional articles for review and analysis that emphasize various management response systems to crisis and disasters.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 9. Man-Made Disaster Management: Issue of Technology and Chemical Disasters

Readings: Tierney:

A11:

A primer for Preparedness for Acute Chemical Emer-

gencies.

Case Studies:

Times Beach Disaster

Missouri

Role of FEMA/EPA Love Canal; and, Issue of the Hooker Chemical Corporation: The Obligation of the Corporate Sector

Assignment: Technological Hazards: Public Policy Indications

Using the "Public Policy in Emergency Management" bibliography as a point of departure, select references for review and analysis that emphasize man-made hazards (e.g. chemical, nuclear, toxic substances).

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 10.

Assignment:

Activity:

Discussion of man-made hazards and implications for public policy.

Discussion of research papers for presentation and defense at the final seminar session.

Session 11.

Activity:

Presentation and defense of research papers.

#### PUBLIC POLICY IN EMERGENCY MANAGEMENT

#### COURSE OUTLINE

#### Required Texts:

- (1) Natural Hazard Risk Assessment and Public Policy: Anticipating the Unexpected. William J. Petak and Arthur A. Atkisson, Springer-Verlag, New York, 1982.
- (2) Bureaucracy and Policy Implementation. Randall B. Ripley and G. A. Franklin, 1982.
- (3) Natural Hazards and Public Choice: The State and Local Politics of Hazard Mitigation. Peter H. Rossi, James D. Wright, Eleanor Weber-Burdin, Academics Press, New York, 1982.
- (4) General Accounting Office, "National Flood Insurance: Marginal Impact on Flood Plain Development--Administrative Improvements Needed." Washington, D.C., 1982.
- (5) General Accounting Office, "Federal Disaster Assistance: What Should the Policy Be?" Washington, D.C., 1980.
- (6) Earthquake Mitigation Policy: The Experience of Two States. Thomas E. Drabek, Alvin H. Mushkatel, and Thomas S. Kilijanek, University of Colorado (IBS#6), Boulder, CO, 1983.

#### Recommended Readings:

- (1) "Jackson Flood 1979: Public Policy Disaster," Rutherford H. Platt, American Planning Association Journal (Spring 1982), pp. 219-231.
- (2) Integrated Emergency Management System (IEMS) documents; a series of issuances, beginning in September 1983. Available from State and Local Programs and Support at FEMA, Central or Regional Offices.
- (3) ICMA and FEMA "Organizing for Comprehensive Emergency Management." International City Managers Association, Washington, D.C.: 1980.
- (4) "Emergency Decision Making," Irving L. Janis and Leon Mann, Journal of Human Stress 3:2, 1977, pp. 35-48.

#### PUBLIC POLICY IN EMERGENCY MANAGEMENT

#### Introduction:

This course is designed for graduate-level study leading towards a masters degree in public administration (MPA). Although designed for graduate-level study, this course can be modified (as appropriate) to complement undergraduate programs in public administration.

Intended as a course designed to analyze key existing and emerging public policy issues and policy decisions in emergency management, the purpose of this course is to provide an understanding of how governments plan for and respond to natural and technological disasters.

As a graduate-level course, an appropriately thorough examination of research relevant to managerial strategies in emergency management is expected. Also expected is a comprehensive review of the state-of-the-art in prevention, warning, evacuation, rescue and recovery systems.

The required and recommended readings focus on providing an understanding of:

- 1. The stages of the policy-making process;
- 2. The institutions involved; and,
- 3. Case studies.

The underlying assumption throughout this course is that "public management that is highly responsive to emergencies can save lives and minimize damage to property."

#### Objectives:

A general objective is to provide an understanding of how governments plan for and respond to natural and technological disasters.

Specific course objectives are to:

- Sharpen analytical and systematical thinking about problems likely to occur during emergencies;
- 2. Provide an understanding of the impact of institutional and political context(s) of policy-making;
- Provide an understanding of "turf wars" and how to avoid them; and
- 4. Explore different approaches to policy analysis.

#### Format:

This course can be used separately or as a part of a series of classes with appropriate modification.

Eleven intensive seminar sessions of two-to-four-hours' duration comprise this course.

A comprehensive bibliography citing relevant literature which addresses major policy issues in emergency management is provided to assist seminar participants in the development of written assignments. Also, the bibliography provides a basic point of departure for further research on emergency management policy issues or specific policy decisions. The on-going identification and assessment of new literature is encouraged.

Prior to each seminar session, participants are required to complete all assigned readings. Additionally, participants are required to prepare a two-to-five-page summary of the assigned readings which either the individual or the instructor selects from the relevant bibliography. These papers are to be duplicated and disseminated to both seminar participants and the instructor. Each participant is expected to present an overview of relevant findings and be prepared to defend salient points addressed.

In addition to the above requirement(s), each seminar member is required to develop a 15-20 page comprehensive research paper on either an emerging policy issue or a specific policy decision. The specific focus of the research paper will be determined by the instructor. The paper is to be analytical and not solely narrative or speculative. As a minimum, the final research paper should:

- 1. Contain a clear problem statement;
- Identify key actors (e.g. proponents and opponents) and their positions;
- 3. Provide an outline of the alternatives and consequences of the policy issue/decision;
- 4. Contain an assessment of decisions made; and,
- 5. Critically assess the degree of success in implementing the policy issue or decision.

After initial lectures, the instructor serves primarily as a discussion leader and resource person. Depending on appropriateness and availability of resources, films, guest speakers, simulations, case studies and field trips may be used to complement instruction.

#### Evaluation:

Performance evaluation of seminar participants shall be based on the quality of: (a) written assignments; (b) weekly presentations summarizing reviews of selected or assigned literature; and, (c) the comprehensive research paper and its defense during the final seminar session.

Evaluation criteria for assessing written assignments include: (a) the quality of research design; (b) writing; (c) organization; and (d) presentation/defense of research papers.

A final factor used in assessing performance is the quality of each person's participation in seminar discussions.

# Course Content

Session 1. Introduction and Institutional Setting of Policy-Making

Film: "Countdown to Disaster" (Introduction)

Readings: Ripley and Franklin: Chapters l Program Implementation,

and 3: Policy Types and Federal-

ism

Petak and Atkisson: Chapter 1: Anticipating the Unexpec-

ted as a Focus on Public

Policy

General Accounting National Flood Insurance

Office (GAO) Report and Public Policy

Assignment: Identification of major policy issues in emergency management.

Using the "Public Policy in Emergency Management" bibliography as a point of departure, identify, select and analyze a key policy issue in emergency management.

Suggested issues for analysis include, but are not limited to: (a) liability; (b) news media; (c) intergovernmental relations; (d) hazardous materials; (e) nuclear facilities; (f) public support and management; (g) funding; and, (h) the (h) the use of volunteers.

In analyzing the issue of your choice, include, as a minimum, a discussion of:

1. The history of the issue;

- 2. Who is affected by the issues today?
- 3. What public policy is relevant and what policy alternatives have been taken?
- 4. What tradeoffs are reflected in the existing policy or policies related to the issue?
- 5. What assumptions are made about the premises e.g. "the proper role of government?"

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 2. Public Policy and Natural Hazards: Characteristics and Mitigations

Readings: Petak and Atkisson: Chapter 2: Hazard Characteristics

Chapter 3: Public Policy Approaches

Drabek, et al. Chapter 1: Point of Departure Issues

of Earthquake Mitigation Alternatives Lessons in

Policy

Chapter 2: Approach/Use of Case

Studies

Rossi, et al. Chapter 1: Policy, Politics and Haz-

ards

Assignment: Identification of Major Public Policy Issues in Natural Hazards Mitigation.

Using the first five pages of the "Public Policy in Emergency Management" bibliography as a point of departure, identify, select and analyze a key natural hazards mitigation public policy issue.

Suggested issues for analysis include, b.t are not limited to, the following: (a) floods; (b) hurricanes; (c) nuclear facilities; (d) earthquakes; (e) hazardous materials;

(f) news media; (g) intergovernmental relations; and,

(h) the politics of hazard mitigation.

In analyzing the issue of your choice, include, as a minimum, a discussion of:

- 1. The history of the issue;
- 2. Who is affected by the issue today?
- 3. What public policy is relevant and what policy alternatives have been taken?
- 4. What tradeoffs are reflected in the existing policy or policies related to the issue?
- 5. What assumptions are made about the premises e.g. "the proper role of government?"

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 3. Natural Hazard Risk Assessment: Technologica' Hazard and Mitigation Analysis:

Film: "The Killing Ground: Issue of Major Chemical Contamination and Policy Alternatives for Government Entities"

Readings: Petak and Atkisson: Chapter 4: Methodologies for Hazard Analysis (Risk, Cost Analysis and Social Impacts)

Drabek, et al. Chapter 3: Alternative Interpretive Frameworks (Multi-organizational Networks)

Rossi, et al. Chapter 5: Assessment of Hazards Policies: The Case of Nine California Communities

Assignment: Natural/Technological Hazard Risk Assessment and Public Policy

Using the first eight pages of the "Public Policy in Emergency Management" bibliography as a point of departure, identify, select and analyze a key natural or technological hazard mitigation public policy issue.

New articles addressing such issues may be found in: (1) "The Natural Hazards Observer," a bimonthly publication obtainable from the Natural Hazards Research and Applications Information Center, University of Colorado, Boulder, Colorado; and, (2) New monographs published by the Disaster Research Center of Ohio State University.

Other journals and new publications announced by the instructor may also be used as resources.

Suggested issues for analysis include, but are not limited to, the following: (a) the economics of natural disasters; (b) natural hazard risk and public policy; (c) risk assessment in the policy-making process; (d) technological hazards; (e) integrated hazard management policies and alternatives; (f) natural hazard risk assessment for insurance, emergency preparedness and hazard mitigation activities, and seismic hazard awareness; (g) seismic hazard awareness and public policy; and, (h) economic analysis of natural and technological hazards.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 4. Hazard Exposure, Loss and Mitigation Costs and Chemical/ Technological Hazards

Film: "Love Canal Case: Role of FEMA"

Readings: Petak and Atkisson: Chapter 5: Hazard Loss/Effects/Fed-

eral Liability for Natural

Hazard Losses

Chapter 6: Losses and Strategies for

Mitigation

Assignment: Chemical/Technological Hazard Risk Assessment and Public

Policy

Review "A Primer for Preparedness for Acute Chemical Emergencies" by Kathleen Tierney (1980).

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 5. Policy Planning, Constraints in Management Policy Making

Readings: Petak and Atkisson: Chapter 7: Approaches to Actual

Events: San Francisco

Earthquake

Chapter 8: Policy Makers

Chapter 9: Legal Issues in Policy

Assignment: Public Policy Planning and Policy Formulation

Select an article on intergovernmental relations as it relates to policy development. Articles may be selected from from either either (a) a bibliography not previously used in the seminar; (b) new journals on disaster management; or, (c) new journals on land use and administration.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 6. Policy Implementation

Readings: Ripley and Franklin: Chapter 4: Implementation of Programs

Chapter 5: Competitive Regulatory

Policy

Chapter 6: Protective Regulatory

Policy

Assignment: The Case Study Approach to the Analysis of Emergency Management Policy Issues.

Using the "Public Policy in Emergency Management" bibliography (or other literature) as a point of departure, select and analyze an article that uses the case study approach to examine a key public policy issue.

Write a short case study review. The review should be divided into three sections:

o Problem Statement: In your opinion, what is/are the policy problem(s)?

- o Participants: Who are the key actors on each side of the question?
- o Options: From the perspective of each key actor, what are the achievable (e.g. realistic) policy options and their likelihood of success?

Be prepared to discuss and defend significant findings at the next seminar session.

# Session 7. Comparing Earthquake Mitigation Policy: The Experience of Two States

Readings: Drabek, et al. Chapter 4: Missouri

Chapter 5: Resistance from Below:

St. Louis and HUD--Policy Types and Implementation

Strategies

Chapter 6: Washington

Chapter 7: Closer Look and Policy

Matters of Schools/Nuclear

Power

Assignment: Public Policy Implementation Strategies: Lessons Learned

Drawing from previous readings on public policy applications, select a policy issue that is unique to either a community or a State with which you are familiar.

Write a brief report that assesses either the application or the implementation of the emergency plan used by the community or State selected.

Instructor assistance will be provided to participants in need of direction relative to how to retrieve copies of the public policy or emergency plan for the State/community of your choice.

The report is to be divided into three sections:

o Problem Statement: In your opinion, what is/are the policy problem(s)?

- o Participants: Who are the key actors on each side of the question?
- o Options: From the perspective of each key actor, what are the achievable (e.g. realistic) policy options and the likelihood of success?

# Session 8. Comparison of Two States with Policy Constraints

Readings: Drabek, et al. Chapter 10: Progress and Restraint

Rossi, et al. Chapter 3: How Important Are Natural

Hazards Problems to State

and Community Elites

Chapter 4: Elite Support Levels for

Federal Disaster Policy

Alternatives

Chapter 6: Elite Appraisals of the

NFIP

# Assignment:

Drawing from previous readings on public policy applications, issues, and alternatives, select two states adversely affected by natural or technological hazards public policy or policy decision.

Write a brief comparative assessment that addresses inherent constraints impacting the successful implementation of the public policy or the public policy decision.

The report is to be divided into three sections:

- Problem Statement: In your opinion, what is/are the policy problem(s)?
- Participants: Who are the key actors on each side of the question?
- Options: From the perspective of each key actor, what are the achievable (e.g. realistic) policy options and the likelihood of success?

Be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 9. Politics of Policy Implementation and Insurance Compensation

Readings: Ripely & Franklin: Chapter 7: Implementation of Redis-

tribution Programs

Chapter 8: Politics of Implementation

Petak and Atkisson: Chapter 10: Policy Alternatives

"Federal Disaster Assis-General Accounting Office:

What Should the tance:

Policy Be?"

General Accounting National Flood Insurance Office:

Program, (GAO/RCED-83-53)

January, 1983.

# Assignment:

Using the "Public Policy in Emergency Management" bibliography (or other literature) as a point of departure, select and analyze an article that addresses political issues surrounding the implementation of the National Flood Insurance Program. Include in your assessment an analysis of risks associated with insurance compensation.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

#### Session 10.

Activity: Discussion of inherent problems associated with the implementation of the Federal Disaster Assistance Act

> Discussion of research papers for presentation and defense at the final seminar session.

#### Session 11.

#### Activity:

Presentation and defense of final research paper

#### PUBLIC POLICY BIBLIOGRAPHY IN EMERGENCY MANAGEMENT

## BIBLIOGRAPHY

- Abernethy, James J., "Teaching Hazards Mitigation," <u>Journal of Architectural Education</u>, Vol. 33, No. 4, 1980, pp. 43-45.
- Abney, F. Glenn and Larry B. Hill, "Natural Disasters as a Political Variable: The Effect of a Hurricane on an Urban Election," The American Political Science Review, LX (Dec. 1966), pp. 974-981.
- Adamic, Milan Orozen, "The Effects of the 1976 Earthquake in the Soca River Basin," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, eds., Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 533-556.
- Adams, David, "The Red Cross: Organizational Sources of Operational Problems,"

  American Behavioral Scientist, Vol. 13, No. 3 (Jan-Feb. 1970), pp. 392-403.
- Adams, David S., Policies, Programs and Problems of the Local Red Cross Disaster
  Relief in the 1960's, Historical and Comparative Disaster Series No. 4.
  Columbus, Ohio: Disaster Research Center, Ohio State University, 1977.
- Alaska, Division of Emergency Services, "Guidelines for Local Government Emergency Planning", Alaska Division of Emergency Services, Anchorage, Alaska: p. 32.
- Aldrich, Howard E., Organizations and Environments, Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1979, pp. 26-74.
- Alquist, Alfred E., "Government's Response to Risk," in <u>Earthquake Risk: Conference Proceedings</u>, Sacramento, California: Joint Committee on Seismic Safety to the California Legislature, 1971, pp. 35-38.
- American Association for the Advancement of Science, "Fire Safety and Disaster Preparedness," Report from a workshop on problems identified by the Intergovernmental Science, Engineering, and Technology Advisory Panel, Washington, D.C.: 1979.
- Anderson, William A., Local Civil Defense in Natural Disaster: From Office to Organization, Disaster Research Center Report Series No. 7, Columbus, Ohio: 1969.

- Archibald, K.A., "Three Views of the Expert's Role in Policy Making: Systems Analysis, Incrementalism and the Clinical Approach," Santa Monica, California: Rand Corporation, 1970.
- Association of Bay Area Governments, Earthquake Preparedness Program, "Earthquake Intensity and Related Costs in the San Francisco Bay Area," San Francisco, California: 1978.
- Atkisson, Arthur A., and William J. Petak, "Seismic Safety Policies and Practices in U.S. Metropolitan Areas: A Three City Case Study," Working Report No. 80-1373-2, Redondo Beach, California: J. H. Wiggins Co., 1981.
- Atkisson, Arthur A., et al., "Natural Hazards and Public Policy: Recommendations for Public Policies to Mitigate the Effects of Natural Hazard Exposures in the United States," Springfield, Virginia: National Technical Information Service (PB80-187-412), 1978.
- Baird, Bruce P., Motivating and Educating Key Publics, Sacramento, California: Seismic Safety Commission, 1980.
- Baker, Earl J., and Joe Gordon McPhee, Land Use Management and Regulation in Hazard Areas, Boulder, Colorado: University of Colorado, 1975.
- Baker, Earl J., "Public Attitudes Toward Hazard Zone Controls," <u>Journal of The American Institute of Planners</u>, Vol. 43, No. 4, 1977, pp. 401-408.
- Baker, Earl J., "Geographical Variations in Hurricane Risk and Legislative Response,"

  Coastal Zone Management Journal 5:4, 1979.
- Baker, E. J., Toward an Evaluation of Policy Alternatives Governing Hazard-Zone

  Land Uses, Institute of Behavioral Science, Boulder, Colorado: University
  of Colorado, 1976.
- Baltz, Duane, "Applying Interlocal Agreements to Emergency Management A Handbook," Washington, D.C.: National Association of Counties Research, Inc., 1981, p.16.
- Baram, Michael S., Alternatives to Regulation: Managing Risks to Health, Safety and The Environment, Lexington, Massachusetts: Lexington Books, 1981.
- Beach, H. D., Management of Human Behavior in Disaster, Ottawa, Ontario: Canada Department of National Health and Welfare, 1967.
- Burby, R. J. and S. P. French, "Coping with Floods: The Land Use Management Paradox." Journal of The American Planning Association, (July 1981).
- Burton, Ian, Robert W. Kates, and Gilbert F. White, The Environment as Hazard, New York: Oxford University Press, 1978.
- California, Office of Emergency Services, Disaster Assistance Procedure Manual, Sacramento, California: 1984.
- California, Seismic Safety Commission, "Assessment of Public Policy Regarding Lifelines and Critical Facilities in California, 2 Vols., Sacramento, California: 1980.

- California, Seismic Safety Commission, "Goals and Policies for Earthquake Safety in California," SSC 79-04, Sacramento, California: 1979.
- Carter, T. Michael, "The Role of Coordination Among Emergency Service Agencies in Community Preparedness," University of Minnesota: Natural Hazard Warning Service Report Series 79-09, 1979.
- Carter, T. M., "Community Warning Systems: The Relationships Among the Broadcast Media, Emergency Service Organizations, and the National Weather Service,"

  <u>Disasters and the Mass Media</u>, Washington, D.C.: National Academy of Sciences, 1980, pp. 214-228.
- Carter, T. M., J. P. Clark, and R. K. Leik, "Organizational and Household Response to Hurricane Warnings in the Local Community," Houston: Paper presented to the annual meetings of the American Association for the Advancement of Science, 1979.
- Commonwealth of Pennsylvania, Joint Legislative Air and Water Pollution Control and Conservation Committee, "Integrated Flood Management: A Pennsylvania Perspective," Harrisburg, Pennsylvania: 1981.
- Conservation Foundation, Flood Hazard Management and Natural Resources Protection--Trainer's Manual, Washington, D.C.: Conservation Foundation, 1980.
- Dacy, Douglas C. and Howard Kunreuther, The Economics of Natural Disasters: Implications for Federal Policy, New York: Free Press, 1969.
- Diggins, William, "Necessary Decisions? Disaster Mitigation Policy on the Local Level," Tulane University.
- Drabek, Thomas E., "Methodology of Studying Disasters: Past Patterns and Future Possibilities," American Behavioral Scientist, Vol. 13, 1970, pp. 331-343.
- Drabek, Thomas E., Managing Multi-Organizational Emergency Responses: Emergent

  Search and Rescue Networks in Natural Disaster and Remote Settings, Boulder,

  Colorado: Institute of Behavioral Science, University of Colorado, 1981.
- Drabek, Thomas E., et al., Earthquake Mitigation Policy: Experience of Two States, Boulder, Colorado: Institute of Behavioral Science, University of Colorado, 1983.
- Duncan, R. B., "Characteristics of Organizational Environments and Perceived Environmental Uncertainty," Administrative Science Quarterly, Vol. 17, 1972, pp. 313-327.
- Dynes, Russell R., "Organized Behavior in Disaster," Columbus, Ohio: Disaster Research Center, The Ohio State University, 1975.
- Dynes, Russell R., "Organizational Involvement and Changes in Community Structure in Disaster," American Behavioral Scientist, Vol. 13, 1970, pp. 430-439.
- Dynes, Russell R., and Enrico L. Quarantelli, Organizational Communication and Decision Making in Crises, 2nd ed., Disaster Research Center Report Series No. 17, Columbus, Ohio: Disaster Research Center, Ohio State University, 1977.

- Earle, M. Mark, et al., "Multi-Jurisdictional Responses to Urban and Regional Disasters," Springfield, Virginia: National Technical Information Service (AD-A091 568/6), 1980.
- Eckstein, Harry, "Authority Relations and Governmental Performance: A Theoretical Framework," Princeton University: Center of International Studies, 1968.
- Federal Emergency Management Agency, "Disaster Operations--A Handbook for Local Governments," (CPG 1-6), Washington, D.C.: July 1981, p. 179.
- Federal Emergency Management Agency, "Standards for State Civil Preparedness," Washington, D.C.: 1978.
- Federal Emergency Management Agency, "Flood Hazard Mitigation: Handbook of Common Procedures," Washington, D.C.: 1981.
- Federal Emergency Management Agency, "Integrated Emergency Management System," a series of issuances, beginning September 1983, available from Office of State and Local Programs and Support at FEMA Central and Regional Offices.
- Federal Emergency Management Agency, "An Assessment of the Consequences and Preparations for a Catastrophic California Earthquake: Findings and Actions Taken," Washington; D.C.: 1981.
- Field, Robert I., "Patterns in the Laws on Health Risks," <u>Journal of Policy</u>
  Analysis and Management, Vol. 1, Winter 1982, PP. 257-260.
- Fischoff, Baruch, et al., "Handling Hazards," Environment, Vol. 20, No. 7, 1978, pp. 16-20 and 32-27.
- Fischoff, B., et al., "Approaches to Acceptable Risk," Eugene, Oregon: Decision Research, A Branch of Perceptronics, 1980.
- FitzSimmons, Ann R., <u>Natural Hazards and Land Use Planning</u>, Boulder, Colorado: University of Colorado, Natural Hazards Research and Applications Information Center, 1983.
- Florida, Department of Community Affairs, <u>Bureau of Disaster Preparedness</u>, and Florida State University, "Hurricane Hazard Mitigation at The Local Government Level: The Roles of The Building Codes and Other Development Management Strategies," Tallahassee, Florida: 1980.
- Foster, Harold D., Disaster Planning: The Preservation of Life and Property, New York/Berlin: Springer-Verlag, 1981.
- Frame, Hess, Nielsen, Techniques of Organizational Change, San Diego, California: University Associates, 1982.
- Francaviglia, Richard V., "Xenia Rebuilds: Effects of Pre-disaster Conditioning on Post-disaster Redevelopment," American Institute of Planners Journal, No. 44, January 1978.
- Given, William C. and Mitchell, J. B., "Community Power Structure: A Methodological Analysis and Comparison," Research Bulletin 1046, Wooster, Ohio: Ohio Agriculture Research and Development Center, 1971.

- Griffin, C. T., "Causal Model Analysis of Role Performance of Coordinators in the Operating Systems Following a Disaster," Ames, Iowa: Iowa State University, 1972.
- Gunderloy, Frank C., Jr., and Wayne L. Stone, "Planning Guide and Checklist for Hazardous Materials Contingency Plans" (FEMA-10), Washington, D.C.: Federal Emergency Management Agency, July 1981.
- Haas, J. Eugene, and Dennis S. Mileti, "Socio-Economic Impact of Earthquake Prediction on Government, Business and Community: Research Findings, Issues, Implications for Organizational Policy," Boulder, Colorado: Institute of Behavioral Science, University of Colorado, 1976.
- Haas, J. E., R. W. Kates, and M. Bowden, <u>Reconstruction Following Disaster</u>, Cambridge, Massachusetts: The MIT Press, 1977.
- Hall, Richard, et al., "Patterns of Interorganizational Relationships," Administrative Science Quarterly, 22, (September 1977), pp.457-474.
- Herman, Roger E., Disaster Planning for Local Government, New York: Universe Books, 1982.
- Hildebrand, Michael S., "Disaster Guidelines for Fire Chiefs," Washington, D.C.: International Association of Fire Chiefs, July 1980, p. 70, and Springfield, Virginia: National Technical Information Service.
- International City Management Association and Federal Emergency Management Agency, "How Prepared is Your Community for its Next Emergency: A Manager's Check-list," Local Government Emergnecy Management Handbook Series No. 2 and ICMA publication on "Organizing for Comprehensive Emergency Management: A Practitioner's Workbook," Handbook Series No. 3, Washington, D.C.: ICMA 1980.
- Janis, Irving L. and Leon Mann, "Emergency Decision Making: A Theoretical Analysis of Responses to Disaster Wa nings," Journal of Human Stress, Vol. 3, No. 2, 1977, pp. 35-48.
- Jones, William, "On Decision Making in Large Organizations," Santa Monica: The Rand Corporation, 1964.
- Kartez, Jack D., "Emergency Planning Implications of Local Governments' Responses to Mt. St. Helens," Working Paper #46, Boulder, Colorado: University of Colorado, NHRAIC (IBS#6), 1982.
- Kim, John Choon K., Richard L. Ender, "Earthquake Hazards Mitigation Policy Implimentation: The Alaskan Experience," paper presented at the American Society for Public Administration Conference, New York, April, 1983. (NSF #8112632)
- Kimberly, John, "The Life Cycle Analogy and the Study of Organizations: Introduction," in The Organization Life Cycle, San Francisco, California: Jossey-Ball, Inc., 1980.
- Kreps, Gary A., "Decision Making Under Conditions of Uncertainty: (vil Disturbance and Organizational Change in Urban Police and Fire Departments, Disaster Research Center Report No. 13, Columbia, Columbia,

- Kunreuther, Howard, "Societal Decision Making for Low Probability Events: Descriptive and Prescriptive Aspects," Working Paper No. 80-164, Laxenburg, Austria: International Institute for Applied Systems Anlaysis, 1980.
- Kunreuther, Howard, with Ralph Ginsberg, et al., <u>Disaster Insurance Protection:</u>
  Public Policy Lessons, New York: John Wiley and Sons, 1978.
- Kunreuther, Howard, et al., An Interactive Modeling System for Disaster Policy
  Analysis, Technology, Environment, and Man Monograph Series No. 26, Boulder,
  Colorado: University of Colorado, NHRAIC, 1978.
- Lave, L., "Risk, Safety and the Role of Government," in Perspectives on Benefit Risk Decision Making, Report of a Colloquium Conducted by the Committee on Public Engineering Policy, Washington, D.C.: National Academy of Engineering, 1971.
- Lagorino, Henry, "Failures in Public Policy Research," in What Decision Makers Need to Know: Policy and Social Science Research on Seismic Safety, S. Scott, ed., Berkeley, California: Institute of Governmental Studies, pp. 15-16, 1979.
- Lammers, C. J., "Power and Participation in Decision-Making in Formal Organizations," American Journal of Sociology, Vol. 73, No. 2, 1967, pp. 201-216.
- Leik, Robert, and G. A. Gifford, "Decision Making under Threat of Disaster," University of Minnesota, Department of Sociology, 1979.
- Lowrance, William W., Of Acceptable Risk, Los Altos, California: William Kaufman, Inc., 1976.
- Ludwig, Harvey and Gordon M<sup>C</sup>Callum, "Public Health Service Emergency Assistance in Disaster Relief," Public Health Reports, Vol. 68, June 1953, pp.630-632.
- Lukko, R. and G. Morton, "Media Coverage of Disasters: Better than Reported, Worse than Necessary," Journalism Quarterly, Vol. 55, 1978, pp. 68-72.
- Mann, Dean E. and Alan J. Wyner, "The Responses of Local Governments in California to Seismic Events," Santa Barbara, California: Department of Political Science, University of California, 1977.
- Margerum, Terry, "We're Not Ready for the Big Quake: What Local Governments Can Do," Berkeley, California: Association of Bay Area Governments, 1980.
- Mazmanian, D. A., and J. Nienaber, <u>Can Organizations Change?</u> <u>Environmental Protection: Citizen Participation and the Corps of Engineers</u>, <u>Washington</u>, D.C.: <u>The Brookings Institution</u>, 1979.
- Meir, Kenneth J., "Measuring Organizational Power: Resources and Autonomy of Governmental Agencies," Administration and Society, Vol. 12, (November 1980) pp. 357-375.
- Mileti, Dennis S., Thomas E. Drabek, and J. Eugene Haas, Human Systems in Extreme Environments: A Sociological Perspective, Boulder, Colorado: University of Colorado, NHRAIC, 1975.

- Mileti, Dennis, and E. M. Beck, "Communication in Crisis," Communication Research Vol. 2, No. 1, 1975, pp. 24-49.
- Mintier, J. Laurence, and Peter Arne Stomberg, "Seismic Safety at the Local Level: Does Planning Make a Difference?," California Geology, Vol. 36, No. 7, (July 1983), pp. 148-154.
- Morentz, J. W., H. C. Russell, and J. A. Kelly, <u>Practical Mitigation</u>: <u>Strategies</u>
  for <u>Managing Disaster Prevention and Reduction</u>, <u>Rockville</u>, <u>Maryland</u>:
  Research Alternatives, Inc., 1982.
- Munroe, Tapan, and Cynthia Elair, "Economic Impact of Selamic Design Decision Analysis: A Preliminary Investigation," Springfield, Virginia: National Technological Information Service, PB-259 187, 1975.
- Murray, Lynn C., "Socio-Economic Effects of Denied Requests for Major Disaster Declarations," Washington, D.C.: Federal Emergency Management Agency, Office of Disaster Response and Recovery, Office of Federal Response Coordination, 1980.
- National Governors' Association, "Hazard Mitigation: Strategies for Managing Disaster Prevention and Reduction," Washington, D.C.: 1981.
- National Governors' Association, "Comprehensive Emergency Management: A Governor's Guide," Washington, D.C.: 1982, pp. 299-306.
- National Governors' Association, "National Emergency Assistance Programs--A Governor's Guide," Vol. III, Washington, D.C.: 1979.
- New England Municipal Center, "You Are Never Completely Safe... Emergency Management: A Handbook for Local Government Officials," Durham, New Hampshire: 1980.
- Newman, Frederick L., et al., "Decision Versus Policy in Crises Intervention,"

  American Journal of Community Psychology, Vol. 7, No. 5, 1979, PP. 543-562.
- Norton, C. F., "Emergency Preparedness and Disaster Assistance: Federal Organization and Programs," Washington, D.C.: Library of Congress Congressional Research Service, 1978.
- Norton, C. F., "Emergency and Disaster Preparedness Reorganization," Issue Brief No. 77118. Washington, D.C.: The Library of Congress Research Service Major Issues System, 1979.
- Olson, Richard Stuart, and Douglas C. Nilson, "California's Hazardous Structure Problem: A Political Perspective," California Geology, Vol. 36, No. 4 (April 1983), pp. 89-91.
- Olson, Robert A., "The California Seismic Safety Commission, 1975-80: Public Policy and a Practitioner's Observations," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference,

  Barclay G. Jones and Miha Tomazevic, eds., Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 275-289.

- Osborn, Richard N., and James G. Hunt, "Environment and Organizational Effectiveness," Administrative Science Quarterly, Vol. 19, (June 1974), pp. 231-242.
- Pate, M. Elisabeth, "Risk and Public Policy," Technical Report, John A. Elume Earthquake Engineering Center, Stanford University, Springfield, Virginia: National Technical Information Service, PB81-120057, 1980.
- Perry, Ronald W., and Marjorie R. Greene, "The Role of Ethnicity in the Emergency Decision-Making Process," Sociological Inquiry, Vol. 52, (Fall 1982), pp. 306-334.
- Perry, Ronald W., et al., "Evacuation Decision-Making and Emergency Planning: Report of Preliminary Findings," Seattle, Washington: Battelle Human Affairs Research Center, 1980.
- Petak, William J., Arthur A. Atkisson, and P. H. Gleye, <u>Natural Hazards</u>: A <u>Public Policy Assessment</u>, Springfield, Virginia: <u>National Technical Information Service</u>, PB-297 361, 1978.
- Petak, William J., Arthur A. Atkisson, Natural Hazards Risk Assessment and Public Policy: Anticipating the Unexpected, New York: Springer-Verlag, 1982.
- Platt, Rutherford H., "Jackson Flood 1979: Public Policy Disaster," American Planning Association Journal, (Spring 1982), pp. 219-231.
- Prud'Homme, A., "What an Emergency Plan Should Cover: The Key Planning Issues," Los Angeles, California: Atlantic Richfield Company, 1982.
- Quarantelli, Enrico L., and Russell R. Dynes, "When Disaster Strikes: It Isn't Much Like What You've Heard and Read About," <u>Psychology Today</u>, Vol. 9, 1972, pp. 67-70.
- Regens, James L., Thomas M. Dietz, and Robert W. Rycroft, "Risk Assessment in the Policy-Making Process: Environmental Health and Safety Protection," in Public Administration Review, Vol. 43, No. 2, (March/April 1983), pp. 137-145.
- Richards, Peter G., "Questions about Local Authorities and Emergency Planning," Local Government Studies, Vol. 5, No. 3, (May/June 1979), pp. 37-42.
- Rogers, Everett, and Rahul Sood, <u>Mass Media Operations in a Quick-Onset Natural Disaster</u>, Boulder, Colorado: University of Colorado, NHRAIC, 1981.
- Rogers, David, David Whetten and Associates, Interorganizational Coordination, Ames, Iowa: Iowa State University, 1982.
- Rose, Adam, Local Government Emergency Management: An Economic Perspective,
  Natural Hazards Research Paper, Boulder, Colorado: Institute of Behavioral
  Science, University of Colorado, 1980.
- Rose, Adam, "Mandating Local Government Emergency Services," The Urban Interest, Vol. 2, No. 1, (Spring 1980), pp. 65-73.
- Ross, Alexander, "Organizational Innovation in Disaster Settings," <u>Disasters:</u>
  Theory and Research, 1977, pp. 215-232.

- Rossi, Peter H., et al., Natural Hazards and Public Choice: The State and Local Politics of Hazard Mitigation, New York: Academic Press, 1982.
- Rowe, William D., "Governmental Regulation of Societal Risks," The George Washington Law Review, Vol. 45, (August 1977), pp. 944-968.
- Rowe, William D., An Anatomy of Risk, John Wiley and Sons, Inc., 1977.
- Rubin, Claire B., Natural Disaster Recovery Planning for Local Public Officials, Columbus, Ohio: Washington, D.C.: Academy for State and Local Government, 1979.
- Rubin, Claire B., "Managing the Recovery from a Natural Disaster," Management

  Information Service Report, Vol. 14, Washington, D.C.: International

  City Management Association, 1982, pp.1-14.
- Rubin, Claire B., "Case Studies of Communities Recovering From Natural Disasters: Year II Final Report," Washington, D.C.: George Washington University, (January, 1983).
- Scheuch, D. R., "A Retrospective Look at Some of The Basic Issues Connected with National Command, Control and Communications," Menlo Park, California: SRI International, 1980.
- Schmidt, Stuart M., and Thomas A. Kochan, "Interorganizational Relationships: Patterns and Motivations," Administrative Science Quarterly, Vol. 22, (June 1977), pp. 220-234.
- Scott, Stanley, "California Cities and Seismic Safety: Local Officials Need to Give More Attention to Disaster Preparedness," in Western City, (August 1983), pp. 6-16.
- Scott, Stanley, Policies for Seismic Safety: Elements of a State Governmental Program, Berkeley, California: Institute of Governmental Studies, University of California, 1979.
- Scott, Stanley, ed., "What Decision Makers Need to Know: Policy and Social Science Research on Seismic Safety," Institute of Governmental Studies Research Report No. 79-5, Berkeley, California: Institute of Governmental Studies, University of California, 1979.
- Scott, Stanley, "Formulating and Implementing Policies for Seismic Safety," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, eds., Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 267-274.
- Slovic, P., et al., "Rating the Risks," Environment, Vol. 21, No. 3, pp. 16-22 and 32-37.
- Smart, Carolyn, and I. Vertinsky, "Designs for Crisis Decision Units," Administrative Science Quarterly, Vol. 22, 1977, pp. 640-657.

- Spangle, W. and Associates, Inc., Land Use Planning After Earthquakes, Portola Valley, California: William Spangle and Associates, 1980.
- Stallings, Robert A., "The Community Context of Crisis Management," American Behavioral Scientist, Vol. 16, 1973, pp. 312-325.
- Stephens, Lynn H., and Stephen J. Green, eds., <u>Disaster Assistance</u>, <u>Appraisal</u>, <u>Reform and New Approaches</u>, New York: New York University Press, 1979.
- Stoddard, Ellwyn R., "Some Latent Consequences of Bureaucratic Efficiency in Disaster Relief," Human Organization, Vol. 28, 1969, pp. 177-189.
- Texas Department of Public Safety, Emergency Services, "Manual for Local Government Operations," 1984.
- Thiel, Charles C., "Lifelines, Seismic Hazards and Public Policy," in <u>Social and Economic Impact of Earthquakes on Utility Lifelines: Proceedings</u>, J. Isenberg, ed., New York: American Society of Civil Engineers, 1981.
- Thompson, James D., and Robert W. Hawkes, "Disaster, Community Organization and Administrative Process," in Man and Society in Disaster, George W. Baker and Dwight W. Chapman, eds., New York: Basic Books, 1962, pp. 268-300.
- Torry, William I., "Disasters, Societal Risks and Interorganizational Stresses," Berkeley, California: University of California, 1978.
- Turner, Barry A., "The Organizational and Interorganizational Levelopment of Disasters," Administrative Science Quarterly, Vol. 21, No. 3, 1976, pp. 378-397.
- U.S. Comptroller General, Areas Around Nuclear Facilites Should Be Better Prepared for Radiological Emergencies, Washington, D.C.: General Accounting Office, 1979.
- U.S. Comptroller General, Federal Disaster Assistance: What Should the Policy Be?, (PAD-80-39), Washington, D.C.: General Accounting Office, 1980.
- U.S. Comptroller General, Improved Administration of Federal Public Disaster Assistance Can Reduce Costs and Increase Effectiveness, Washington, D.C.: General Accounting Office, July 23, 1982.
- U.S. Comptroller General, "Requests for Federal Disaster Assistance Need Better Evaluation," Washington, D.C." General Accounting Office, 1981.
- U.S. Comptroller General, States Can be Better Prepared to Respond to Disaster, Washington, D.C.: General Accounting Office, March 31, 1980.
- U. S. General Accounting Office, "National Flood Insurance: Marginal Impact on Flood Plain Development--Administrative Improvements Needed," Washington, D.C.: 1982.
- U. S. <u>Library of Congress, Congressional Research Service</u>, "Background and Status of Executive Order 11490: The Assignment of Emergency Preparedness Functions," by Harold C. Relyea, Washington, D.C.: U.S. Government Printing Office, 1980.

- University of Southern California, College of Continuing Education and School of Public Administration, Office of Program Development, "Emergency Disaster Preparedness in Los Angeles County: A Multi-Jurisdictional Dilemma," Springfield, Virginia: National Technical Information Service, (AD-A081 440), 1979.
- Vig, Normal J., and Patric J. Bruer, "The Courts and Risk Assessment," Policy Studies Review, Vol. 1, May 1982, pp. 716-727.
- Warheit, George J., and Russell R. Dynes, "The Functioning of Established Organizations in Community Disasters," Disaster Research Center Report Series No. 1, Columbus, Ohio: Disaster Research Center, Ohio State University, 1968.
- Weller, J. M., "Organizational Innovation in Anticipation of Crisis," Disaster Research Center Report Series No. 14, Columbus, Ohio: Disaster Research Center, Ohio State University, 1974.
- White, Gilbert F., and J. Eugene Haas, <u>Assessment of Research on Natural Hazards</u>, MIT Press Environmental Studies Series. Cambridge, Massachusetts: MIT Press, 1975.
- Whitman, Robert V., Norton S. Rimmer and Betsy Schumaker, "Feasibility of Regulatory Guidelines for Earthquake Hazards Reduction in Existing Buildings in Northeast," Cambridge, Massachusetts: Department of Civil Engineering, M.I.T., 1980.
- Whittow, John, Disasters: The Anatomy of Environmental Hazards, London, England: Alan Lane/Penguin Books, Ltd., 1980.
- Whyte, Anne V., and Ian Burton, eds., Environmental Risk Assessment, SCOPE Report No. 15, Chichester, England: John Wiley and Sons, 1980, Washington, D.C.: U. S. Government Printing Office, 1980, (Written by Harold C. Relyea.)
- Wiggins, John H., "Balanced Risk Analysis," <u>Journal of Architectural Education</u>, Vol. 33, No. 4, 1980, pp. 6-8.
- Wolensky, Robert P., and W. J. Miller, "The Everyday Versus the Disaster Role of Local Officials: Citizen and Official Definitions," <u>Urban Affairs Quarterly</u>, Vol. 16, No. 4, June 1981.
- Wolensky, Robert P., "How Do Community Officials Respond to Major Catastrophes?," Disasters, Vol. 1, No. 4, 1977, pp. 272-274.
- Wolensky, Robert P., "Power Structure and Group Emergence in Disasters," Stephens Point, Wisconsin: University of Wisconsin, 1979.
- Wolfe, Myer R., "Urban Scale Vulnerability: Some Implications for Planning," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, eds., Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 307-322.
- Woodward-Clyde Consultants, "Assessment of Public Policy Regarding Lifelines and Critical Facilities in California," San Francisco, California: 1980.

- Wright, J. D., et al., The Apathetic Politics of Natural Disasters, Amherst,
  Massachusetts: University of Massachusetts, Social and Demographic Research
  Institute, 1979.
- Wright, James D., et al., After the Clean-Up: Long-Range Effects of Natural Disasters, Contemporary Evaluation Research, Vol. 2, Beverly Hills: Sage Publications, Inc., 1979.
- Young, Mary E., "Disasters: Effects, Preparedness, Assessment, and Recovery,"
  Vol. 1, 1964-1975, (a bibliography with abstracts), Springfield, Virginia:
  National Technical Information Service, (PB80-802127), 1977.
- Yutzy, Daniel, "Priorities in Community Response," American Behavioral Scientist, Vol. 13, 1970, pp. 344-353.

## INTERGOVERNMENTAL RELATIONS AND EMERGENCY MANAGEMENT

## COURSE OUTLINE

## Required Texts:

- (1) Natural Hazards and Public Choice: The State and Local Politics of Hazard Mitigation. Academic Press, New York, Peter Rossi, James Wright and Eleanor Weber-Burdin, 1982.
- (2) Natural Hazard Risk Assessment and Public Policy: Anticipating the Unexpected. William Petak and Arthur Atkisson, Springer-Verlag. New York, 1982.
- (3) General Accounting Office: "Areas Around Nuclear Facilities Should be Better Prepared for Radiological Emergencies, 1979.
- (4) Integrated Emergency Management System (IEMS) documents; a series of issuances, beginning in Sept. 1983. Available from State and Local Program and Support at FEMA Central and Regional Offices.
- (5) Case Studies of Communities Recovering from Natural Disasters.
  Claire B. Rubin, Wash., D.C.: The George Washington University, 1983.
- (6) General Accounting Office "Improved Administration of Federal Public Disaster Assistance Can Reduce Costs and Increase Effectiveness," 1982.
- (7) General Accounting Office "States Can Be Better Prepared to Respond to Disaster," 1980.
- (8) Managing the Toxic Waste Problem: Lessons from Love Canal. John A. Wortley and Richard Torkelson, 1981.
- (9) Intergovernmental Relations. Diel Wright.

#### Recommended Readings:

- (1) Managing Multiorganizational Emergency Responses. Thomas E. Drabek, et. al, 1981.
- (2) "Patterns of Interorganizational Relationships." Richard Hall, 1977.
- (3) "Intergovernmental Relationships." Stuart Schmidt and Thomas Kochan, 1977.
- (4) "The Organizational and Interorganizational Development of Disasters." Barry A. Turner, 1976.
- (5) General Accounting Office "Federal Involvement in the Mount St. Helens Disaster: Past Expenditures and Future Needs", 1982.
- (6) Conquering Disaster. Thomas Drabek and William Key, 1984.
- (7) Disaster Planning for Local Government. Roger E. Herman, Universe Books, New York, 1982.

### INTERGOVERNMENTAL RELATIONS AND EMERGENCY MANAGEMENT

## Introduction:

This course is designed for graduate-level study leading towards a masters degree in public administration (MPA). Although designed for graduate-level study, this course can be modified (as appropriate) to complement undergraduate programs in public administration.

Intended as a course designed to provide an understanding of the dynamics of intergovernmental relations in setting policies and priorities in emergency management, the purpose of this course is to provide a forum for researching and addressing emerging or existing public policy issues and policy decisions that typically occur during and after major natural and technological disasters.

As a graduate-level course, an appropriately thorough examination of research relevant to managerial strategies in emergency management is expected. Also expected is a comprehensive review of the state-of-the-art in prevention, warning, evacuation, rescue and recovery systems.

The required and recommended readings are intended to provide an understanding of:

- 1. Key elements in intergovernmental relations;
- 2. Intergovernmental relations public policy issues, problems, and alternatives;
- 3. Legal and socio-economic constraints on public hazards management;
- 4. Intergovernmental relations and integrated emergency management; and,
- 5. Case studies on intergovernmental relations.

The underlying assumptions throughout this course are: (a) "the ability of governmental agencies to work with each other to coordinate efforts in planning and responding to emergencies is an essential part of the emergency mangement effort;" and, (b) "cooperative efforts to avoid jurisdictional 'turf wars' between and within governmental levels will reduce the loss of lives and damage to property."

#### Objective(s):

A primary course objective is to provide an understanding of the dynamics of government relations in setting policies and priorities in emergency management.

## Format:

This course can be used separately or as a part of a series of classes with appropriate modification.

Eight intensive seminar sessions of two-to-four-hours' duration comprise this course.

A comprehensive bibliography citing relevant literature which addresses major policy issues and decisions surrounding intergovernmental relations and emergency management is provided to assist seminar participants in the development of written assignments. Also, the bibliography provides a basic point of departure for further research on emerging intergovernmental relations policy issues or specific policy decisions. The on-going identification and assessment of new literature are encouraged.

Prior to each seminar session, participants are required to complete all assigned readings. Additionally, participants are required to prepare a two-to-five-page summary of the assigned readings which either the individual or the instructor selects from the relevant bibliography. These papers are to be duplicated and disseminated to both seminar participants and the instructor. Each participant is expected to present an overview of relevant findings and be prepared to defend salient points addressed.

In addition to the above requirements, each seminar member is required to develop a 15-20 page comprehensive research paper on either an emerging policy issue or a specific policy decision. The specific focus of the research paper will be determined by the instructor. The paper is to be analytical and not solely narrative or speculative. As a minimum, the final research paper should:

- 1. Contain a clear problem statement;
- 2. Identify key actors (e.g. proponents and opponents) and their positions;
- 3. Provide an outline of the alternatives and consequences of the policy issue/decision;
- 4. Contain an assessment of decisions made; and,
- 5. Critically assess the degree of success in implementing the policy issue or decision.

After initial lectures, the instructor serves primarily as a discussion leader and resource person. Depending on appropriateness and availability of resources, films, guest speakers, simulations, case studies and field trips may be used to complement instruction.

## Evaluation:

Performance evaluation of seminar participants shall be based on the quality of (a) written assignments; (b) weekly presentations summarizing reviews of selected or assigned literature; and, (c) the comprehensive research paper and its defense during the final seminar session.

Evaluation criteria for assessing written assignments include (a) the quality of research design; (b) writing; (c) organization; and, (d) presentation/defense of research papers. A final factor used in assessing performance is the quality of each person's participation in seminar discussions.

(A11):

## Course Content:

Readings: Wright:

Session 1. Introduction to Intergovernmental Relations

Intergovernmental Relations

Assignment: Key Elements in Intergovernmental Relations

Using the "Recommended Readings" section as a point of departure, read Diel Wright's textbook titled Intergovernmental Relations. Major emphasis is to be given to specific references focusing on the identifications of the key elements in intergovernmental relations (e.g. participants, policy-making, and outcomes).

Develop a brief, analytical paper that includes as a minimum, an assessment of the key elements addressed above. The paper should have a clear statement of purpose, and a framework for analysis.

Be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 2. The Administration and Constraints of Policy Planning in Intergovernmental Relations

Films: Love Canal Case:

FEMA

Readings: Petak & Atkisson: Chapter 1: Public Policy Problems

Chapter 8: Plight of the Policy
Maker, Establishing Priorities and the Federal

Role

Chapter 9: Constraints on Public Hazards Management (Legal constraints, economic and administrative con-

straints)

Assignment: Emerging Management Roles, Responsibilities and Authorities at the Federal, State and local level(s)

Using the "Required Readings" section as a point of departure, read assigned chapters in Petak and Atkisson's textbook titled Natural Hazard Risk Assessment and Public Policy: Anticipating the Unexpected.

Identify and assess constraints on managers representing local, State and Federal jurisdictions. For purposes of this assignment, "managers" under consideration are:
(1) local administrative officers; (2) State emergency directors; and, (3) federal emergency supervisors.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 3. Policy Options for Managers in Dealing with Intergovernmental Relations

Readings: Petak & Atkisson: Chapter 10: Public Policy Alternatives

(Federal, State and local governments. Options for private sector entities.)

Rossi, Wright,

Weber-Burdin: Chapter 1: Policy, Politics and

Hazards

Chapter 2: Study Design

Chapter 3: Importance of Hazards

Problems

Chapter 4: Elite Support Levels for

Disaster Policy Alterna-

tives

Assignment: Public Policy Options and Alternatives in Intergovernmental

Relations

Using the "Required Readings" section as a point of departure, review the candidate goal statements and the action possibilities for federal, State and local governments and rank each in terms of their application in the area of intergovernmental relations.

Write a brief paper and be prepared to discuss and defend significant findings during the next scheduled seminar session.

Session 4. Priorities and Pressures Towards Hazard Mitigation: Impact on Intergovernmental Relations

Readings: Petak and Atkisson: Chapter 10: Public Policy Alternatives

(Federal, State and local governments. Options for private sector entities.)

Rossi, Wright, Weber-Burdin:

Chapter 5:

Popular Assessments

Chapter 6: Elite Appraisals of the

NFIP

Chapter 7: Patterns of Interest and

Power

Chapter 8: Patterns of Group Activity

and Power

Assignment: Elite Behavior: Impact on Intergovernmental Relations

Policy

Using the "Required Readings" section as a point of departure, read assigned chapters in Petak and Atkisson (and)

Rossi, et al.

Write a brief paper on how "elite" behavior may impact: (1) the goal statements; and, (2) the action possibilities addressed by Petak and Atkisson.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 5: Intergovernmental Relations and Integrated Emergency Management

Readings: (All): Integrated Emergency Management: FEMA Explains
New Program

General Accounting
Office:

(All):
Federal Public Disaster
Assistance Can Reduce
Costs and Increase Effectiveness

General Accounting
Office:

(All):
State Can be Better Prepared to Respond to Disaster.

General Accounting
Office:

(All):

Areas Around Nuclear Facilities Should be Better Prepared for Radiological Emergencies

Assignment: The Integrated Emergency Management System (IEMS) Concept

Using both the "Required Readings" and the "Intergovernmental Relations and Emergency Management" bibliography as a point of departure, write a brief paper that addresses: (1) What the Federal Emergency Management Agency (FEMA) means by the IEMS concept?; and, (2) How the technique of integrated management can be used to respond to to the General Accounting Office (GAO)?

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

## Session 6: Case Studies on Intergovernmental Relations

Readings: Petak & Atkisson: Chapter 10: Public Policy Alterna-

tives (Federal, State and local governments. Options for private sector

entities.)

Rubin: Cases on Communities Re-

covering from Natural Dis-

asters

Wortley &

Torkelson: (All): Managing the Toxic Waste

Problem: Lessons from

Love Canal

Recommended

Readings: Turner: The Organizational and

Interorganizational Development of Disasters

Assignment: Case Study Analysis

Using the "Required and Recommended Readings" and the "Intergovernmental Relations and Emergency Management" bibliography as point(s) of departure, select a case study from either the above source(s) or another source.

Review the case study with respect to the policy alternatives and outcomes addressed in Petak and Atkisson (Chapter 10).

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

#### Session 7: Research Paper

#### Activity:

Discussion of Intergovernmental Relations and Emergency Management case studies.

Discussion of research papers for presentation and defense at the final seminar session.

Session 8:

Activity:

Presentation and defense of final research paper.

#### INTERGOVERNMENTAL RELATIONS AND EMERGENCY MANAGEMENT

#### **BIBLIOGRAPHY**

- Abernethy, James J., "Teaching Hazards Mitigation," <u>Journal of Architectural</u> <u>Education</u>, Vol. 33, No. 4, 1980, pp. 43-45.
- Adamic, Milan Orozen, "The Effects of the 1976 Earthquake in the Soca River Basin," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, (eds.), Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 533-556.
- Aldrich, Howard E., Organizations and Environments, Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1979, pp. 26-74.
- American Association for the Advancement of Science, "Fire Safety and Disaster Preparedness," Report from a workshop on problems identified by the Intergovernmental Science, Engineering, and Technology Advisory Panel, Washington, D.C.: 1979.
- American Red Cross, "Prototype Business/Industry Emergency and Disaster Plan,"
  Disaster Services, Golden Gate Chapter, San Francisco, California: 1981.
- Baker, Earl J., "Geographical Variations in Hurricane Risk and Legislative Response," Coastal Zone Management Journal 5:4, 1979.
- Baker, E. J., Toward an Evaluation of Policy Alternatives Governing Hazard-Zone

  Land Uses. Boulder, Colorado: Institute of Behavioral Science, University
  of Colorado, 1976.
- Baltz, Duane, "Applying Interlocal Agreements to Emergency Management A Handbook," Washington, D.C.: National Association of Counties Research, Inc., 1981. pp. 16.
- Baram, Michael S., Alternatives to Regulation: Managing Risks to Health, Safety and the Environment, Lexington, Massachusetts: Lexington Books, 1981.
- Bartol, John, "Role of California Community Colleges in Disseminating Earthquake Hazard Mitigation Information," Springfield, Virginia: National Technical Information Service, PB-299 421, 1979.

- Brouillette, John R., and Enrico L. Quarantelli, "Types of Patterned Variations in Bureaucratic Adaptations to Organizational Stress," Sociological Inquiry, Vol. 41, 1971, pp. 39-46.
- Burby, R. J. and S. P. French, "Coping with Floods: The Land Use Management Paradox," Journal of the American Planning Association, July 1981.
- Burton, Ian, Robert W. Kates, and Gilbert F. White, The Environment as Hazard, New York: Oxford University Press, 1978.
- California, State Senate, California's Emergency Communications Crisis, 1983.
- California, Office of Emergency Services, <u>Disaster Assistance Procedure Manual</u>, Sacramento, California: 1984.
- Carter, T. Michael, "The Role of Coordination Among Emergency Service Agencies in Community Preparedness," University of Minnesota: Natural Hazard Warning Service Report Series 79-09, 1979.
- Carter, T. M., "Community Warning Systems: The Relationships Among the Broadcast Media, Emergency Service Organizations, and the National Weather Service."

  <u>Disasters and the Mass Media</u>, Washington, D.C.: National Academy of Sciences, 1980, pp. 214-228.
- Carter, T. M., J. P. Clark, and R. K. Leik, "Organizational and Household Response to Hurricane Warnings in the Local Community," Houston: Paper presented to the annual meetings of the American Association for the Advancement of Science, 1979.
- Casana, John G., et al., <u>Drought Management in New England: A Method for Integrating Short-Range Operational and Long-Range Investment Strategies</u>, Washington, D.C.: National Science Foundation, 1981.
- Church World Service, "Church Response to U.S. Disasters," New Windsor, Maryland: CWS Domestic Disaster Office, 1978.
- Cole, Jou, "Kansas Guidelines for Development: Local Disaster Emergency Plan," Topeka, Kansas: Division of Emergency Preparedness, Adjutant General Department, 1978, pp. 113.
- Commonwealth of Pennsylvania, Joint Legislative Air and Water Pollution Control and Conseravation Committee, "Integrated Flood Management: A Pennsylvania Perspective," Harrisburg, Pennsylvania: 1981.
- Conservation Foundation, Flood Hazard Management and Natural Resources Protection— Trainer's Manual, Washington, D.C.: Conservation Foundation, 1980.
- Dacy, Douglas C., and Howard Kunreuther, The Economics of Natural Disasters: Implications for Federal Policy, New York: Free Press, 1969.
- Davis, Morris, Steven T. Seitz, "Disasters and Governments," <u>Journal of Conflict</u>
  Resolution, Vol. 23, No. 3, September 1982, pp. 547-568.

- Drabek, Thomas E., "Social Processes in Disaster: Family Evaluation," Social Problems, Vol. 16, 1969, pp. 336-347.
- Drabek, Thomas E., "Methodology of Studying Disasters: Past Patterns and Future Possibilities," American Behavioral Scientist, Vol. 13, 1970, pp. 331-343.
- Drabek, Thomas E., Managing Multi-Organizational Emergency Responses: Emergent

  Search and Rescue Networks in Natural Disaster and Remote Settings, Boulder,

  Colorado: Institute of Behavioral Science, University of Colorado, 1981.
- Drabek, Thomas E., et al., <u>Earthquake Mitigation Policy</u>: <u>Experience of Two States</u>, Boulder, Colorado: <u>Institute of Behavioral Science</u>, <u>University of Colorado</u>, 1983.
- Dynes, Russell R., "Organized Behavior in Disaster," Columbus, Ohio: Disaster Research Center, The Ohio State University, 1975.
- Dynes, Russell R., "Organizational Involvement and Changes in Community Structure in Disaster," American Behavioral Scientist, Vol. 13, 1970, pp. 430-439.
- Dynes, Russell R., and Enrico L. Quarantelli, "Group Behavior Under Stress: A Required Convergence of Organizational and Collective Behavior Perspectives," Sociology and Social Research, Vol. 52, 1968, pp. 416-429.
- Dynes, Russell R., and Enrico L. Quarantelli, <u>Organizational Communication and Decision Making in Crises</u>, 2nd ed., Disaster Research Center Report Series No. 17, Columbus, Ohio: Disaster Research Center, Ohio State University, 1977.
- Dynes, Russell, and George Warheit, "Organizations in Disaster," EMO National Digest Vol. 9, April-May, 1969, pp. 12-13.
- Dynes, Russell R., J. Eugene Haas, and Enrico L. Quarantelli, "Administrative, Methodological and Theoretical Problems of Disaster Research," Indiana Sociological Bulletin, Vol. 4, 1967, pp. 416-429.
- Earle, M. Mark, et al., "Multijurisdictional Responses to Urban and Regional Disasters," Springfield, Virginia: National Technical Information Service, AD-A091 568/6.
- Eckstein, Harry, "Authority Relations and Governmental Performance: A Theoretical Framework," Princeton University: Center of International Studies, 1968.
- Federal Emergency Management Agency, "Standards for State Civil Preparedness," Washington, D.C.: 1978.
- Federal Emergency Management Agency, "An Assessment of the Consequences and Preparations for a Catastrophic California Earthquake: Findings and Actions Taken," Washington, D.C.: 1981.
- Federal Emergency Management Agency, "Flood Hazard Mitigation: Handbook of Common Procedures," Washington, D.C." 1981.
- Federal Emergency Management Agency, "Integrated Emergency Management Systems," series of issuances, Washington, D.C.: 1983.

- Florida, Department of Community Affairs, Bureau of Disaster Preparedenss, and Florida State University, "Hurricane Hazard Mitigation at the Local Government Level: The Roles of the Building Codes and Other Development Management Strategies," Tallahassee, Florida: 1980.
- Fischoff, Baruch, et al., "Handling Hazards," Environment, Vol. 20, No. 7, 1978, pp. 16-20 and 32-37.
- Frame, Hess, Nielsen, <u>Techniques of Organizational Change</u>, San Diego, California: University Associates, 1982.
- Foster, Harold D., <u>Disaster Planning</u>: The Preservation of Life and Property, New York/Berlin: Springer-Verlag, 1981.
- Francaviglia, Richard V., "Xenia Rebuilds: Effects of Pre-disaster Conditioning on Post-disaster Redevelopment," American Institute of Planners Journal, No. 44, January 1978.
- Griffin, C. T., "Causal Model Analysis of Role Performance of Coordinators in the Operating System Following a Disaster," Ames, Iowa: Iowa State University, 1972.
- Gunderloy, Frank C., Jr., and Wayne L. Stone, "Planning Guide and Checklist for Hazardous Materials Contingency Plans," (FEMA-10), Washington, D.C.: Federal Emergency Management Agency, July 1981, pp. 116.
- Haas, J. Eugene, and Dennis S. Mileti, "Socioeconomic Impact of Earthquake Prediction on Government, Business and Community: Research Findings, Issues, Implications for Organizational Policy," Boulder, Colorado: Institute of Behavioral Science, University of Colorado, 1976.
- Haas, J. E., R. W. Kates, and M. Bowden, <u>Reconstruction Following Disaster</u>, Cambridge, Massachusetts: The MIT Press, 1977.
- Hall, Richard, et al., "Patterns of Interorganizational Relationships," Administrative Science Quarterly, September, 1977, pp. 457-474.
- International City Management Association and Federal Emergency Management Agency, "How Prepared is Your Community for its New Emergency: A Manager's Checklist," Local Government Emergency Management Handbook Series No. 2 and ICMA publications on "Organizing for Comprehensive Emergency Management: Washington, D.C.: ICMA, 1980.
- Kimberly, John, "The Life Cycle Analogy and the Study of Organizations: Introduction," in <u>The Organizational Life Cycle</u>, San Francisco, California: Jossey-Ball, Inc., 1980.
- Knoke, David H., and James R. Wood, <u>Organized for Action</u>: <u>Commitment in Voluntary Associations</u>, New Brunswick, New Jersey: <u>Rutgers University Press</u>, 1981.
- Kreps, Gary A., "Decision Making Under Conditions of Uncertainty: Civil Disturbance and Organizational Change in Urban Police and Fire Departments," Disaster Research Center Report No. 13, Columbus, Ohio: Ohio State University, Disaster Research Center, 1973.

- Kunreuther, Howard, et al., <u>Disaster Insurance Protection: Public Policy Lessons</u>, New York: John Wiley and Sons, 1978.
- Kunreuther, Howard, et al., An Interactive Modeling System for Disaster Policy Analysis, Man Monograph Series No. 26, Boulder, Colorado: Natural Hazards Research and Applications Information Center, University of Colorado, 1978.
- Lagadec, Patrick, Major Technological Risk: An Assessment of Industrial Disasters, New York: Pergamon Press, 1982.
- Lammers, C. J., "Power and Participation in Decision-Making in Formal Organizations,"

  American Journal of Sociology: Vol. 73, No. 2, 1967, pp. 201-216.
- Lave, L., "Risk, Safety and the Role of Government," in Perspectives on Benefit
  Risk Decision Making, Report of a Colloquium Conducted by the Committee on
  Public Engineering Policy, Washington, D.C.: National Academy of Engineering,
  1971.
- Leik, Robert, and G. A. Gifford, "Decision Making Under the Threat of Disaster," University of Minnesota, Department of Sociology, 1979.
- Lester, James P., et al., "Hazardous Wastes, Politics, and Public Policy: A Comparative State Analysis," <u>Western Political Quarterly</u>, Vol. 36 June, 1983, pp. 257-285.
- Lukko, R., and G. Morton, "Media Coverage of Disasters: Better than Reported, Worse than Necessary," Journalism Quarterly, Vol. 55, 1978, pp. 68-72.
- McCallum, Gordon, and Harvey Ludwig, "Public Health Service Emergency Assistance in Disaster Relief," Public Health Reports, Vol. 68, June 1953, pp. 630-632.
- Mann, Dean E., and Alan J. Wyner, "The Responses of Local Governments in California to Seismic Events," Santa Barbara, California: Department of Political Science, University of California, 1977.
- Margerum, Terry, "We're Not Ready for the Big Quake: What Local Governments Can Do," Berkeley, California: Association of Bay Area Governments, 1980.
- Mazmanian, D. A., and J. Nienaber, <u>Can Organizations Change?</u> Environmental Protection: Citizen Participation and the Corps of Engineers, Washington, D.C.:

  The Brookings Institution, 1979.
- Meir, Kenneth J., "Measuring Organizational Power: Resources and Autonomy of Governmental Agencies," Administration and Society, Vol. 12, November 1980, pp. 357-375.
- Mileti, Dennis S., and David F. Gillespie, "An Integrated Formalization of Organization-Environment Interdependencies," <u>Human Relations</u>, Vol. 29, No. 1, 1976, pp. 85-100.
- Mileti, Dennis S., Thomas E. Drabek, and J. Eugene Haas, Human Systems in Extreme Environments: A Sociological Perspective, Technology, Environment, and Man Monograph Series No. 21, Boulder Colorado: Natural Hazards Research and Applications Information Center, University of Colorado, 1975.

- Mileti, Dennis and E. M. Beck, "Communication in Crises," Communication Research, Vol. 2, No. 1, 1975, pp. 24-49.
- Morentz, J.W., H. C. Russell and J. A. Kelly, <u>Practical Mitigation</u>: <u>Strategies</u>
  <u>for Managing Disaster Prevention and Reduction</u>, Rockville, Maryland: Research
  <u>Alternatives</u>, Inc., 1982.
- Mitchell, James K., "Coastal Zone Management: A Comparative Analysis of National Programs," in Ocean Yearbook 3, Elisabeth M. Borgese and Norton Ginsburg eds., Chicago, Illinois: University of Chicago Press, 1982.
- Mitchell, Jeffrey, Emergency Response to Crises, Brady, 1981.
- Murray, Lynn C., "Socio-Economic Effects of Denied Requests for Major Disaster Declaration," Washington, D.C.: Federal Emergency Management Agency, Office of Disaster Response and Recovery, Office of Federal Response Coordination, 1980.
- National Governors' Association, "Hazard Mitigation: Strategies for Managing Disaster Prevention and Reduction," Washington, D.C.: Association, 1981.
- National Governors' Association, "Comprehensive Emergency Management: A Governor's Guide," Washington, D.C.: 1979.
- National Governors' Association, "National Emergency Assistance Programs--A Governor's Guide, . III, Washington, D.C.: National Governors' Association, Center for Policy Research, 1979.
- Newman, Frederick L., et al., "Decision Versus Policy in Crises Intervention,"

  American Journal of Community Psychology; Vol. 7, No. 5, 1979, pp. 543-562.
- Norton, C. F., "Emergency Preparedness and Disaster Assistance: Federal Organization and Programs," Washington, D.C.: Library of Congress Congressional Research Service, 1978.
- Olson, Robert A., "The California Seismic Safety Commission, 1975-80: Public Policy and a Practitioner's Observations," in <u>scial and Economic Aspects</u> of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, eds. Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 275-286.
- Osborn, Richard N. and James G. Hunt, "Environment and Organizational Effectiveness," Administrative Science Quarterly, Vol. 19, June 1974, pp. 231-242.
- Perkins, J. B., "The Use of Earthquake and Related Information in Regional Planning-What We've Done and Where We're Going," in <u>Proceedings of the Second</u> International Conference on Micronzonation for Safer Construction-Research and Application, San Francisco, California: 1978, pp. 315-322.
- Perry, Ronald W., et al., "Evacuation Decision-Making and Emergency Planning; Report of Preliminary Findings," Seattle, Washington: Battelle Human Affairs Research, 1980.
- Petak, William J., and Arthur A. Atkisson, Natural Hazard Risk Assessment and Public Policy: Anticipating the Unexpected, New York: Springer-Verlag, 1982.

- Prud'Homme, A., "What an Emergency Plan Should Cover: The Key Planning Issues," Atlantic Richfield Co., 1982.
- Quarantelli, Enrico L., "Some Needed Cross-Cultural Studies of Emergency Time Disaster Behavior: A First Step," <u>Disasters</u>, Vol. 3, No. 3, 1979, pp. 307-314.
- Quarantelli, Enrico L., and Russell R. Dynes, "When Disaster Strikes: It Isn't Much Like What You've Heard and Read About," Psychology Today, Vol. 9, 1972, pp. 67-70.
- Quarantelli, Enrico L., and Russell R. Dynes, "Operational Problems of Organizations in Disasters," Emergency Operations Symposium, Robert Brictson ed., Santa Monica, California: Systems Development Corporation, 1967, pp. 151-175.
- Regens, James L., Thomas M. Dietz, and Robert W. Rycroft, "Risk Assessment in the Policy-Making Process: Environmental Health and Safety Protection," in Public Administration Review, Vol. 43, No. 2, March/April 1983, pp. 137-145.
- Richard, Peter G., "Questions about Local Authorities and Emergency Planning,"

  <u>Local Government Studies</u>, Vol. 5, No. 3, May/June 1979, pp. 37-42.
- Rogers, Everett, and Rahul Sood, <u>Mass Media Operations in a Quick-Onset Natural Disaster</u>, Boulder, Colorado: Institute of Behavioral Science, University of Colorado, 1981.
- Rogers, David, David Whetten and Associates, Interorganizational Coordination, Ames Iowa: Iowa State University, 1982.
- Rose, Adam, Local Government Emergency Management: An Economic Perspective, Natural Hazards Research Paper. Boulder, Colorado: Institute of Behavioral Science, University of Colorado, 1980.
- Rose, Adam, "Mandating Local Government Emergency Services," The Urban Interest, Vol. 2, No. 1, Spring 1980, pp. 65-73.
- Ross, Alexander, "Organizational Innovation in Disaster Settings," <u>Disasters:</u>
  Theory and Research, 1977, pp. 215-232.
- Rossi, Peter H., et al., Natural Hazards and Public Choice: The State and Local Politics of Hazard Mitigation, New York: Academic Press, 1982.
- Rubin, Claire B., "Case Studies of Communities Recovering From Natural Disasters: Year II Final Report," Washington, D.C.: George Washington University, January, 1983.
- Rubin, Claire B., "Managing the Recovery from a Natural Disaster," Management Information Service Report, Vol. 14, Washington, D.C.: International City Management Association, 1982.
- Rubn, claire B., "Natural Disaster Recovery Planning for Local Public Officials," Washington, D.C." Academy for State and Local Government, 1979.
- Savage, Robert L., "Policy Innovativeness as a Trait of American States," <u>Journal</u> of Politics, Vol. 40, February 1978, pp. 212-224.

- Scanlon, T. Joseph, and Suzanne Alldred, "Media Coverage of Disasters: The Same Old Story," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, eds., Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 363-376.
- Scheuch, D. R., "A Retrospective Look at Some of the Basic Issues Connected with National Command, Control and Communications," Menlo Park, California: SRI International, 1980.
- Schmidt, Stuart M., and Thomas A. Kochan, "Interorganizational Relationships: Patterns and Motivation," Administrative Science Quarterly, Vol. 22, June 1977, pp. 220-234.
- Selig, Andrew L., "A Conceptual Framework for Evaluating Human Services Delivery Organizations," American Journal of Orthopsychiatry, Vol. 46, No. 1, 1976, pp. 140-153.
- Simmonds, Terry R., "Disaster Assistance Manual," Washington State Department of Emergency Services, Olympia, Washington: 1982.
- Slovic, P., et al., "Rating the Risks," Environment, Vol. 21, No. 3, pp. 16-22 and 32-37.
- Smart, Carolyn, and I. Vertinsky, "Designs for Crisis Decision Units," Administrative Science Quarterly, Vol. 22, 1977, pp. 640-657.
- Stallings, Robert A., "The Community Context of Crisis Management," American Behavioral Scientist, Vol. 16, 1973, pp. 312-325.
- Stephens, Lynn H., and Stephen J. Green, eds., <u>Disaster Assistance</u>, <u>Appraisal</u>, <u>Reform and New Approaches</u>, New York: New York University Press, 1979.
- Stoddard, Ellwyn R., "Some Latent Consequences of Bureaucratic Efficiency in Disaster Relief," Human Organization, Vol. 28, 1969, pp. 177-189.
- Taylor, James B., Louis Zurcher, and William H. Key, <u>Tornado: A Community Responds</u> to <u>Disaster</u>, Seattle, Washington: University of Washington Press, 1970.
- Texas, Department of Public Safety, "Manual for Local Government Operations," Emergency Services, 1978.
- Thiagarajan, K., "A Cross-Cultural Study of Preferences for Participative Decision-Making by Supervisors and Subordinates," Rochester, New York: Rochester University, Management Research Center, 1969.
- Torry, William I., "Disasters, Societal Risks and Interorganizational Stresses," Berkeley, California: University of California, Berkeley, 1978.
- Turner, Barry A., "The Organizational and Interorganizational Development of Disasters," Administrative Science Quarterly, Vol. 21, No. 3, 1976, pp. 53-59.

- U.S. Comptroller General, "Areas Around Nuclear Facilities Should be Better Prepared for Rediological Emergencies," General Accounting Office, Washington, D.C., 1979.
- U.S. Comptroller General, "Federal Disaster Assistance: What Should the Policy Be?," (PAD-80-39), General Accounting Office, Washington, D.C., 1980.
- U.S. Comptroller General, "Federal Involvement in the Mount St., Helens Disaster: Past Expenditures and Future Needs," Government Printing Office, Washington, D.C., 1982.
- U.S. Comptroller General, "Improved Administration of Federal Public Disaster Assistance can Reduce Costs and Increase Effectiveness," General Accounting Office, Washington, D.C., July 23, 1982.
- U.S. Comptroller General, "National Flood Insurance: Marginal Impact on Flood Plain Development--Administrative Improvements Needed," General Accounting Office, Washington, D.C., 1982.
- U.S. Comptroller General, "Requests for Federal Disaster Assistance Need Better Evaluation," General Accounting Office, Washington, D.C., 1981.
- U.S. Comptroller General, "States Can Be Better Prepared to Respond to Disaster," General Accounting Office, Washington, D.C., March 31, 1980.
- U.S. Department of Interior, "Goals, Strategies, Priorities, and Tasks of a National Landslide Hazard Reduction Program," 1981.
- U.S. Government Accounting Office, Community and Economic Development Division,
  "States Can Be Better Prepared to Respond to Disasters," Springfield, Virginia:
  National Technical Information Service, (PB80-165178), 1980.
- U.S. General Accounting Office, Report to the Chairman and Ranking Minority Member, Senate Committee on the Budget, U.S. Senate: "Federal Disaster Assistance-What Should the Policy Be?," Gaithersburg, Maryland, 1980A.
- U.S. Library of Congress, Congressional Research Service, "Background and Status of Executive Order 11490: The Assignment of Emergency Preparedness Functions," Harold C. Relyea, Government Printing Office, Washington, D.C., 1980.
- U.S. Office of Science and Technology Policy, "The National Earthquake Hazards Reduction Program," Springfield, Virginia: National Technical Information Service (PB-291 311), 1978.
- U.S. Congress, Committee on Banking, Housing, Urban Affairs, "Flood Insurance and Disaster Assistance," Government Printing Office, Washington, D.C., 1973.
- U.S. Congress, Subcommittee on Snall Business, "Small Business Disaster Loans, 1972,"
  Government Printing Office, Washington, D.C., 1972.
- University of Southern California, College of Continuing Education and School of Public Administration, Office of Program Development, "Emergency Disaster Preparedness in Los Angeles County: A Multi-Jurisdictional Dilemma, "Springfield, Virginia: National Technical Information Service (AD-AO81 440), 1979.

- Warheit, George J. and Russell R. Dynes, "The Functioning of Established Organizations in Community Disasters," Disaster Research Center Report Series No. 1, Columbus, Ohio: Disaster Research Center, Ohio State University, 1968.
- Watt, Graham W., "Management Decision Making in the Emergency Environment," Paper presented at the National Hurricane Conference, Tampa, Florida, May 13, 1983.
- Weller, J. M., "Organizational Innovation in Anticipation of Crisis," Disaster Research Center Report Series No. 14, Columbus, Ohio: Disaster Research Center, Ohio State University, 1974.
- Whittow, John, Disasters: The Anatomy of Environmental Hazards, London: Alan Lane/ Penguin Books, Ltd., 1980.
- Whyte, Anne V. and Ian Burton, eds., <u>Environmental Risk Assessment</u>, SCOPE Report No. 15, Chichester, England: John Wiley and Sons, 1980.
- Wiggins, John H., "Balanced Risk Analysis," <u>Journal of Architectural Education</u>, Vol. 33, No. 4, 1980, pp. 6-8.
- Wofford, Jerry, Organizational Communication: The Keystone to Managerial Effectiveness, New York: McGraw-Hill, 1977.
- Wolensky, Robert P. and W. J. Miller, "The Everyday Versus the Disaster Role of Local Officials: Citizen and Official Definitions," <u>Urban Affairs Quarterly</u>, Vol. 16, No. 4 (June 1981).
- Wolensky, Robert P., "How Do Community Officials Respond to Major Catastrophes?," Disasters, Vol. 1, No. 4, 1977, pp. 272-274.
- Wolensky, Robert P., "Power Structure and Group Emergence in Disasters," Stevens Point, Wisconsin: University of Wisconsin, 1979.
- Wolfe, Myer R., "Urban Scale Vulnerability: Some Implications for Planning,"

  Social and Economic Aspects of Earthquakes: Proceedings of the Third

  national Conference, Barclay G. Jones and Miha Tomazevic, eds., Ithaca,

  New York: Program in Urban and Regional Studies, Cornell University, 1982,

  pp. 307-322.
- Woodward-Clyde Consultants, "Assessment of Public Policy Regarding Lifelines and Critical Facilities in California," San Francisco, 1980.
- Worthley, John A. and Richard Torkelson, "Managing the Toxic Waste Problem: Lessons from the Love Canal," Administration and Society, Vol. 13 (August 1981), pp. 145-160.
- Worthley, John A. and Richard Torkelson, "Intergovernmental and Public-Private Sector Relations in Hazardous Waste Management: The New York Example," The Politics of Hazardous Waste Management, Lester and Bowman, eds., 1982.
- Wright, Joseph E. "Organizational Prestige and Task Saliency in Disaster," <u>Disasters:</u>
  Theory and Research, 1977, pp. 199-213.

- Wright, J. D., et al., <u>The Apathetic Politics of Natural Disasters</u>, Amherst, Massachusetts: University of Massachusetts, Social and Demographic Research Institute, 1979.
- Wright, James D., et al., After the Clean-up: Long-Range Effects of Natural Disasters, Contemporary Evaluation Research, Vol. 2, Beverly Hills: Sage Publication, Inc., 1979.
- Wurth-Hough, Sandra J., "Chemical Contamination and Governmental Policy-making: The North Carolina Experience," State and Local Government Review, Vol. 14, (May 1982), pp. 54-60.
- Zelenkov, Branko, "Financing the Losses and the Risks Due to Earthquakes," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, eds., Ithaca, New York:

  Program in Urban and Regional Studies, Cornell University, 1982, pp. 565-572.

## PLANNING AND EMERGENCY MANAGEMENT

#### COURSE OUTLINE

## Required Texts:

- (1) Disaster Planning: The Preservation of Life and Property. Harold D. Foster, Springer Verlag, New York, 1980.
- (2) Natural Hazards and Public Choice: The State and Local Politics of Hazard Mitigation. Peter Rossi, James Wright and Eleanor Weber-Burdin, Academic Press, New York, 1982.
- (3) Geological Hazards, Resources and Environmental Planning. Gary Griggs and John A. Gilchrist, Second Edition, Wadsworth Publishing Co., 1983.
- (4) Reconstruction Following Disaster. J. Eugene Haas, Robert Kates, Martyn Bowden, University of Colorado (IBS #6), Boulder, CO, 1977.
- (5) Land Use Management and Regulation in Hazardous Areas. Earl J. Baker and Joe Gordon McPhee, University of Colorado (IBS #6), Boulder CO, 1975.
- (6) General Accounting Office. "National Flood Insurance; Marginal Impact on Flood Plain Development." Washington, D.C., 1980.

#### Recormended Readings:

- (1) "Jackson Flood 1979: Public Policy Disaster," Rutherford H. Platt, American Planning Association Journal, (Spring 1982), pp. 219-231.
- (2) "How Prepared is Your Community for its Next Emergency: A Manager's Checklist," Local Government Emergency Management: A Practitioner's Workbook. Handbook Series No.3, International City Management Association and the Federal Emergency Management Agency, 1980.
- (3) "Coping with Floods: The Land Use Management Paradox" Journal of American Planning Association. R. J. Burby and S. P. French, (July 1981).
- (4) "What an Emergency Plan Should Cover: The Key Planning Issues." Atlantic Richfield Co., Los Angeles, CA, A. Prud'Homme, 1982.
- (5) Interorganizational Coordination. David Rogers, Iowa State University, Ames, IA, 1982.
- (6) A Primer for Preparedness for Acute Chemical Emergencies. Kathleen J. Tierney, Disaster Research Center, Ohio State University, Columbus, OH, 1980.

- (7) Seismic Hazards and Land-Use Planning, D. R. Nichols and J. M. Buchanan-Banks, Geological Survey Circular 690, 1980.
- (8) Natural Hazard Risk Assessment and Public Policy: Anticipating the Unexpected. W. J. Petak and A. A. Atkisson, Springer Verlag, New York, 1982.
- (9) Disaster Planning for Local Government. Roger E. Herman, Universe Books, New York, 1982
- (10) "Coping with Floods: The Land Use Management Paradox". <u>Journal of The American Planning Association</u>, (July 1981).

#### PLANNING AND EMERGENCY MANAGEMENT

## Introduction:

This course is designed for graduate-level study leading towards a masters degree in public administration (MPA). Although designed for graduate-level study, this material can be modified to complement undergraduate programs in public administration.

The purpose of this course is to provide an understanding of how the planning process, both administrative and land use planning, can be used to help government prepare and respond to natural and technological disasters.

The required and recommended readings focus on providing an understanding of:

- 1. The stages of planning for disaster mitigation, preparedness and response.
- 2. The importance of land-use planning in communities.
- 3. Case studies.

## Objectives:

Public management that is highly responsive to emergencies can save lives and property. The importance of a proper planning program and control over land-use planning will aid communities in receiving disaster relief and in marshalling resources for reconstruction. Administrative planning can also avoid jurisdictional "turf wars" between agencies during disasters.

This course is designed as a graduate level seminar. Material will be presented on determining relevant planning strategies in emergency management. Also, material on prevention, warning, evacuation, rescue and recovery planning will be covered. The planning function is part of an integrated emergency response system involving other agencies and management systems in dealing with disasters.

#### Format:

This course can be used separately or as a part of a series of classes with appropriate modification.

Nine intensive seminar sessions of two-to-four hours' duration comprise this course.

A comprehensive bibliography citing relevant literature which addresses major policy issues in emergency management is provided to assist seminar participants in the development of written assignments. Also, the bibliography provides a basic point of departure for further research on emergency management policy issues or specific planning decisions. The on-going identification and assessment

of new literature is encouraged.

Prior to each seminar session, participants are required to complete all assigned readings. Additionally, participants are expected to prepare a two-to-five page summary of the assigned readings which either the individual or the instructor selects from the relevant bibliography. These papers are to be duplicated and disseminated to both seminar participants and the instructor. Each participant is expected to present an overview of relevant findings and be prepared to defend salient points addressed.

In addition to the above requirement(s), each seminar member is required to develop a ten-to-twenty page comprehensive research paper on either an emerging planning issue or a specific planning decision (such as the location of hazardous material storage facilities). The specific focus of the research paper will be determined by the instructor. The paper is to be analytical and not solely narrative or speculative. As a minimum, the final research paper should:

- 1. Contain a clear problem statement;
- 2. Identify key actors (e.g. proponents and opponents) and their positions;
- 3. Provide an outline of the alternatives and consequences of the planning decisions;
- 4. Contain an assessment of decisions made; and,
- 5. Critically assess the degree of success in implementing the planning issue or decision.

After initial lectures, the instructor serves primarily as a discussion leader and resource person. Depending on appropriateness and availability of resources, films, guest speakers, simulations, case studies and field trips may be used to complement instruction.

#### Evaluation:

Performance evaluation of seminar participants shall be based on the quality of:
(a) written assignments; (b) weekly presentation summarizing reviews of selected or assigned literature; and (c) the comprehensive research paper and its defense during the final seminar session.

Evaluation criteria for assessing written assignments include: (a) the quality of research design; (b) writing; (c) organization; and (d) presentation/defense of research papers.

A final factor used in assessing performance is the quality of each person's participation in seminar discussions.

## Course Content:

Session 1. Introduction and Comprehensive Planning

Readings: Foster: Chapter 1: Introduction

Chapter 2: Risk and Comprehensive

Planning

Griggs and Gilchrist: Chapter 1: Preliminary Concepts in

Planning

Rossi, Wright and

Weber-Burdin: Chapter 1: Policy, Politics and

Natural Hazards

Chapter 3: How Important are Natural

Hazards Problems to State

and Community Elites?

Chapter 4: Elite Support Levels for

Federal Disaster Policy

Alternatives

Film: Countdown to Disaster

Assignment: From bibliography on Planning and Emergency Management select a reading assignment and prepare a presentation to seminar participants. Papers should meet requirements stated above in the format section.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 2. Risk Assessment and Predicting and Preventing Disaster

Readings: Foster Chapter 3: Development and Spatial

Distribution of Risk

Chapter 4: Safety by Design

Chapter 5: Predicting and Preventing

ing Disaster

Griggs and Gilchrist: Chapter 2: Geologic Hazards Planning

and Cases

Chapter 3: Seismic and Volcanic Jases

and Planning

Film: Role of the National Emergency Training Center

Assignment: Make a second selection from the planning bibliography and focus on a policy issue related to planning. Again, papers should cover the five required elements stated above.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 3. Disaster Warning Systems, Preparedness Planning and Public Assessment

Readings: Foster: Chapter 6: Warning Systems

Rossi, Wright and

Weber-Burdin Chapter 5: Popular Assessments of

Hazards

Chapter 6: Elite Appraisals of NFIP

Chapter 7: Patterns of Interest and

Power in Nonstructural Hazard-Mitigation Politics

in Local Communities

Assignment: Select a community emergency response plan and critique its content, options, application, prospects for successful use of standard operating procedures, and degreee of public support and awareness.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

## Session 4. Geological Considerations in Planning and Emergencies

Readings: Griggs and Gilchrist: Chapter 4: External Hazards Soils

Chapter 5: Landslides and Mass Move-

ments

Chapter 6: Subsidence and Collapse

Chapter 7: Coastal Processes

Chapter 8: Surface Hydrology and Flood-

ing

Assignment: Using references from bibliography or from technical studies examine in a short paper what preparations the selected community has made to deal with geologic hazards (such as a seismic safety element in a comprehensive plan).

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

## Session 5. Emergency Plans as Operating Instruments and Legal Concerns

Readings: Foster Chapter 7: Disaster Plans

Griggs and Gilchrist: Chapter 13: Environmental Planning

(methods of land use con-

trol)

Chapter 14: Environmental Law and Im-

pact Analysis (property rights and land use law, inverse condemnation and local government liability)

Rossi, Wright and

Weber-Burdin: Chapter 8: Hazard Mitigation Legisla-

tion

Assignment:

Review litigation against government entities with reference to court decisions on land use matters in connection with an emergency or a disaster. To what extent can government be held liable for damages as a result of a disaster? Also, can government prohibit land use development in areas of inverse condemnation? Respond to these questions using legal cases or legislation. You may also want to explore the personal liability of government officials (city managers, etc.) with reference to personal property losses by citizens arguing the government was not adequately prepared or should not have developed land subject to hazards.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 6. Planning and Technological Hazards: Nuclear and Chemical Emergencies

Readings: Griggs and Gilchrist: Chapter 9: Groundwater Contamination

Chapter 10: Waste Treatment and Dis-

posal Planning

Chapter 11: Mineral Resource Planning

and Regulation

Chapter 12: Nuclear, Coal, Petroleum

and Other Energy Resources

Film: The Killing Ground (documentary)

Recommended: General Accounting Office:

Areas Around Nuclear Facilities Should Be Prepared for Radiological

Emergencies

Assignment: Write a paper using sources in the bibliography or other technical reports and review how government or community land use plans deal with technological hazards.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

## Session 7. Land Use Planning and Technological Emergencies

Readings: Baker and M<sup>C</sup>Phee: All: Land Use Management and

Regulation in Hazardous

Areas

Recommended: Tierney: Primer for Preparedness

for Acute Chemical Emer-

gencies

Film: Love Canal (Hooker Chemical Co.) Case and FEMA

Assignment: Review cases or case litigation on chemical spills or other

technological emergencies using the five points of content

mentioned in the format section of the outline.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

#### Session 8. Reconstruction Following Disaster and Planning Implications

Readings: Haas, Kates and

Bowden: Chapter 2: Reconstruction (issues,

recovery, alternatives)

Foster: Chapter 8: Construction and Recon-

struction

Rubin: Case Studies of Communi-

ties Recovering from Dis-

asters

Recommended: General Accounting Office: Federal Disaster Assis-

tance: What Should the

Policy Be?

Assignment: Prepare for presentation of overall course research paper.

Be prepared to discuss and defend significant findings at

the next scheduled seminar session.

# Session 9.

# Assignment:

Activity: Presentation of final course research papers and review of findings.

#### PLANNING AND EMERGENCY MANAGEMENT

### **BIBLIOGRAPHY**

- Abeles, Schwartz and Associates/Beyer Elinder Bell, Cost Effective Housing

  Systems for Disaster Relief (Vol. 1: Summary Report, Vol. 2: Federal Experience with Disaster Housing Assistance, Vol. 3: Disaster Typology and Estimated Need for Future Disaster Housing Assistance, Vol. 4: Evaluation of Applicable Housing System Technology, Vol. 5: Cost-Effective Analysis of Pre-Selected Housing Systems, Vol. 6: Performance Standards for Selecting Housing Systems). Springfield, Virginia: National Technical Information Service (PB-262 352, 353, 354, 355, 356, 357), 1975.
- Abeles, Schwartz and Associates/Beyer Blinder Belle, "Site Selection and Design for Disaster Housing Group Sites," Washington, D.C.: Government Printing Office, 1976.
- Abernethy, James J., "Teaching Hazards Mitigation," Journal of Architectural Education, Vol. 33, No. 4, 1980, pp. 43-45.
- AIA Research Corporation, "Designing for Earthquakes: Proceedings from the 1978 Summer Seismic Institutes for Architectural Faculty," E. W. Kennet, (ed.), Springfield, Virginia: National Technical Information Service (PB81-178 12...), 1978.
- Alaska, Division of Emergency Services, "Guidelines for Local Government Emergency Planning," pp. 32.
- American Red Cross, "Prototype Business/Industry Emergency and Disaster Plan,"
  No author, Disaster Services, Golden Gate Chapter, San Francisco. 1981.
- Anderson, William A., "Disaster and Organizational Change in Anchorage" in The Great Alaska Earthquake of 1964, Washington, D.C.: National Academy of Sciences, 1970.
- Association of Bay Area Governments, "Hazards Evaluation for Disaster Preparedness Planning," Berkeley, California: 1976.
- Ayre, Robert S., <u>Technological Adjustments to Natural Hazards</u>, Monograph No. 20. Boulder, Colorado: University of Colorado, 1975. (Also available National Technical Information Service PB 252 691).

- Baca, John, et al., "Natural Disaster Scenario Generator," Final Report, Palo Alto, California: Center for Planning and Research, Inc., 1975. (Also available National Technical Information Service AD-A020 834).
- Baisden, Barbara and Enrico L. Quarantelli, "The Delivery of Mental-Health Services in Community Disasters--An Outline of Research Findings," <u>Journal Community Psychology</u>, Vol. 9, 1981, pp. 195-203.
- Baker, Earl J., and Joe Gordon McPhee, "Land Use Management and Regulation in Hazardous Areas: A Research Assessment," Monograph Series No. 8, Boulder, Colorado: Natural Hazards Research and Applications Information Center, University of Colorado, 1975. (National Technical Information Service PB-261 546).
- Baker, Earl J. and Joe Gordon M<sup>C</sup>Phee, Land Use Management and Regulation in Hazardous Areas, Boulder Colorado: University of Colorado, 1975.
- Baker, Earl J., "Geographical Variations in Hurricane Risk and Legislative Response," Coastal Zone Management Journal 5:4 (1979).
- Bartol, John, "Role of California Community Colleges in Disseminating Earthquake Hazard Mitigation Information," Springfield, Virginia: National Technical Information Service (PB-299 421), 1979.
- Barton, Allen H., Communities in Disaster--A Sociological Analysis of Collective Stress Situations, Garden City, New York: Doubleday, 1969.
- Bates, Frederick L., et al., "Recovery, Change and Development: A Longitudinal Study of the 1976 Guatemalan Earthquake," Athens, Georgia: University of Georgia Press, 1982.
- Battisti, Francesco, "Thresholds of Security in Different Societies," Disasters, Vol. 4, No. 1, 1980, pp. 101-105.
- Berlin, G. Dennis, Earthquakes and the Urban Environment, 3 vols., Boca Raton, Florida: CRC Press, Inc., 1980.
- Berren, M. R., A. Beigel and S. Ghertner, "A Typology for the Classification of Disasters," Community Mental Health Journal, Vol. 16, No. 2, 1980, pp. 103-111.
- Bick, Thomas and Roger E. Kasperson, "Pitfalls of Hazard Management," Environment, Vol. 20, No. 8, 1978, pp. 30-42.
- Blume, John A., "Civil Structures and Earthquake Safety," in <u>Earthquake Risk:</u>
  <u>Conference Proceedings</u>, Sacramento, California: Joint Committee on Seismic Safety to the California Legislature, 1971, pp. 109-116.
- Bolt, Bruce A., Earthquakes: A Primer, San Francisco, California: W. H. Freeman and Co., 1978.
- Burby, R. J. and S. P. French, "Coping with Floods: The Land Use Management Paradox," Journal of the American Planning Association (July 1981).

- Burton, Ian and Robert W. Kates, "The Perception of Natural Hazards in Resource Management," Natural Resources Journal, Vol. 3, No. 3, 1964, pp. 412-441.
- Burton, Ian, Robert W. Kates and Gilbert F. White, The Environment as Hazard, New York: Oxford University Press, 1978.
- Butler, M. A., "Emergency Preparedness Education Program for Public Schools," Raleigh, North Carolina: North Carolina Department of Crime Control and Public Safety, 1980.
- Butler, J. R. G., and D. P. Doessel, "Who Bears the Costs of Natural Disasters?

  An Australian Case Study," Disasters, Vol. 4, No. 2, 1980, pp. 187-204.
- California, Energy Commission, "Recommendations for Earthquake Hazard Reduction Programs During Fiscal Years 80/81-85/86," Sacramento, California: 1980.
- California, Legislature, Assembly Subcommittee on Emergency Planning and Disaster Relief. "Preparing for Disasters: An Evaluation of California's Emergency Preparedness," Sacramento, California: Assembly Committee on Government Organization, 1980.
- California, Office of Emergency Services, "Disaster Assistance Procedure Manual," Sacramento, California: 1984.
- California, Office of Emergency Services, "State of California Earthquake Response Plan," Sacramento, California: 1984.
- California, Seismic Safety Commission, "Evaluating the Seismic Hazard of State-Owned Buildings," Sacramento, California: 1979.
- California, Seismic Safety Commission, Hazardous Buildings Committee, "Hazardous Buildings: Local Programs to Improve Life Safety," Sacramento, California: 1979.
- California, Siesmic Safety Commission, "Public Official Attitudes Toward Disaster Preparedness in California," (CCS 79-05). August 9, 1979, pp.A18-27.
- Carr, Harry C., III, "Area Impact Evaluation: A Planning Methodology for Assessment of the Economic Viability of Local Areas During Crisis Relocation," Washington, D.C.: Checchi and Company, 1975.
- Carter, T. M., "Community Warning System: The Relationships Among the Broadcast Media, Emergency Service Organizations, and the National Weather Service," in Disaster and the Mass Media, Washington, D.C.: National Academy of Sciences, 1980. pp. 214-228.
- Carter, T. M., J. P. CLark, and R. K. Leik, "Organizational and Household Response to Hurricane Warnings in the Local Community," Houston, Texas:

  Paper presented to the annual meetings of the American Association for the Advance ment of Science, 1979.
- City of Windsor, "The Phoenix Study: A Community Response to Disaster," Windsor, Connecticut: Town Hall, 1980.

- Cochrane, Harold C., Natural Hazards and Their Distributive Effects: A Research Assessment, Program on Technology, Institute of Behavioral Science, University of Colorado, 1975. (Also available from National Technical Information Service PB 262 021).
- Cole, Jou, "Kansas Guidelines for Development: Local Disaster Emergency Plan,"
  Topeka, Kansas: Division of Emergency Preparedness, Adjunct General Department, 1978, p. 113.
- Commonwealth of Pennsylvania, Joint Legislative Air and Water Pollution Control and Conservation Committee, "Integrated Flood Management: A Pennsylvania Perspective," Harrisburg, Pennsylvania: 1981.
- Conservation Foundation, "Flood Hazard Management and Natural Resources Protection--Trainer's Manual," Washington, D.C.: 1980.
- Council of State Governments, Comprehensive Emergency Preparedness in State Governments, Lexington, Kentucky: 1976.
- Davis, Morris, and Steven T. Seitz, "Disasters and Governments," <u>Journal of Conflict Resolution</u>, Vol. 23, No. 3, September 1982, pp. 547-568.
- Davis, Ian R., "Disaster Housing: A Case Study of Managua," Architectural Design, 1975, pp. 42-47.
- Davis, Ian R., "Disasters and Settlements Towards an Understanding of the Key Issues," <u>Disasters</u>, Vol. 2, Nos 2/3, 1978, pp. 105-117.
- Davis, P. N., et al., "Missouri River Flood Plain Legal and Institutional Framework Study," Missouri River Basin Commission, 1981.
- Drabek, Thomas E., "Social Processes in Disaster: Family Evaluation," Social Problems, Vol. 16, 1969, pp. 336-347.
- Drabek, Thomas E., "Methodology of Studying Disasters: Past Patterns and Future Possibilities," American Behavioral Scientist, Vol. 13, 1970, pp. 331-343.
- Drabek, Thomas E., Managing Multi-Organizational Emergency Responses: Emergent

  Search and Rescue Networks in Natural Disaster and Remote Settings, Boulder,
  Colorado: Institute of Behavioral Science, University of Colorado, 1981.
- Drabek, Thomas E., et al., The Flood Breakers: Citizens Band Radio Use During the 1978 Flood in the Grand Forks Region, Monograph Series No. 29, Boulder, Colorado: Natural Hazards Research and Applications Information Center, University of Colorado, 1979.
- Drabek, Thomas E., et al., Earthquake Mitigation Policy: Experience of Two States, Boulder, Colorado: Institute of Behavioral Science, University of Colorado, 1983.
- Duncan, R. B., "Characteristics of Organizational Environments and Perceived Environmental Uncertainty," Administrative Science Quarterly, Vol. 17, 1972, pp. 313-327.

- Duncan and Jones, "Model Seismic Safety Element: Final Report," San Diego, California: Comprehensive Planning Organization of San Diego Region, 1974.
- Dynes, Russell R., "Models of Emergency Planning: Contributions from the Social and Economic Aspects of Earthquakes," in <u>Proceedings of the Third International Conference</u>, Barclay G. Jones and Miha Tomazevic, (eds.)

  Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 379-386.
- Dynes, Russell R., and B. E. Aguirre, "Organizational Adaptation to Crises: Mechanisms of Coordination and Structural Change," <u>Disasters</u>, Vol. 3, No. 1, 1979, pp. 71-74.
- Dynes, Russell R., and Enrico L. Quarantelli, "The Role of Local Civil Defense in Disaster Planning," Disaster Research Center Report Series No. 16. Columbus, Ohio: Disaster Research Center, Ohio State University, 1975.
- Dynes, Russell R., and Dennis E. Wenger, <u>Environment Crisis</u>, Columbus, Ohio: Water Resources Center, Ohio State University, 1971.
- Dynes, Russell R., J. Eugene Haas, and Enrico L. Quarantelli, "Administrative, Methodological and Theoretical Problems of Disaster Research," <u>Indiana</u> Sociological Bulletin, Vol. 4, 1967, pp. 416-429.
- Dynes, Russell R., E. L. Quarantelli, and Gary A. Kreps, A Perspective on Disaster Planning, 3rd. edition, The Ohio State University, Disaster Research Center, May 1981.
- Earthquake Engineering Research Institute, Learning from Earthquakes:

  Guide, Berkeley, California: Earthquake Engineering Research Institute,
  1979.
- Ericksen, Neil J., "Scenario Methodology in Natural Hazards Research," Springfield, Virginia: National Technical Information Service (PB-262 024), 1975.
- Erley, Duncan, and William J. Kockelman, "Reducing Landslide Hazards: A Guide for Planners," <u>Planning Advisory Service Report</u>, No. 359, Chicago, Illinois: American Planning Association, 1981.
- Federal Emergency Management Agency, "Standards for State Civil Preparedness," Washington, D.C.: 1978.
- Federal Emergency Management Agency, "Disaster Operations--A Handbook for Local Governments," (CPG 1-6), Washington, D.C.: July 1981.
- Federal Emergency Management Agency, "An Assessment of the Consequences and Preparation for a Catastrophic California Earthquake: Findings and Actions Taken," Washington, D.C.: 1981.
- Federal Emergency Management Agency, "Flood Hazard Mitigation: Handbook of Common Procedures," Washington, D.C.: 1981.

- Federal Emergency Management Agency, "Integrated Emergency Management System," A Series of Issuances, Beginning in September, 1983. Available from Office of State and Local Program Support at FEMA, Central and Regional Offices.
- Florida, Department of Community Affairs, Bureau of Disaster Preparedness, and Florida State University, "Hurricane Hazard Mitigation at the Local Government Level: The Roles of the Building Codes and Other Development Management Strategies," Tallahassee, Florida: 1980.
- FitzSimmons, Ann R., "Natural Hazards and Land Use Planning," Boulder, Colorado: University of Colorado, Natural Hazards Research and Applications Information Center, 1983.
- FitzSimmons, Ann R., Natural Hazards and Small Town Planning, Boulder, Colorado: University of Colorado, Natural Hazards Research and Applications Information Center, 1983.
- Foster, H. D., Disaster Mitigation for Planners: The Preservation of Life and Property, New York: Springer-Verlag, 1980.
- Foster, Harold D., Disaster Planning: The Preservation of Life and Property, New York/Berlin: Springer-Verlag, 1981.
- Francaviglia, Richard V., "Xenia Rebuilds: Effects of Pre-disaster Conditioning on Post-disaster Redevelopment," American Institute of Planners Journal, No. 44, January 1978.
- Friedman, Don G., Computer Simulation in Natural Hazard Assessment, Monograph No. 2, Boulder, Colorado: Institute of Behavioral Science, University of Colorado, 1975. (Also available National Technical Information Service PB-261 755).
- Friesma, H. Paul, (ed.), Aftermath: Community Impacts of Natural Disasters, Beverly Hills, California: Sage Publications, 1979.
- Furumoto, Augustine S., "A Study of Earthquake Losses in the Honolulu Area: Data and Analysis," Honolulu, Hawaii: Department of Defense, Civil Defense Division, State of Hawaii, 1980.
- Germen, Aydin, "Earthquake Sciences and City Planning are Still Disconnected," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, (eds.), Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 323-330.
- Great Lakes Basin Commission, "Great Lakes Basin Plan: Coastal Hazards Plan,"
  Ann Arbor, Michigan: 1981.
- Griggs, Gary B., and John A. Gilchrist, Geological Hazards, Resources, and Environmental Planning, Wadsworth Publishing Co., 1983.
- Gunderloy, Frank C., Jr., and Wayne L. Stone, "Planning Guide and Checklist for Hazardous Materials Contingency Plans," (FEMA-10), Washington, D.C.: FEMA, July, 1981.

- Haas, J. Eugene, "Lessons for Coping with Disaster," on the Alaska Earthquake of the National Research Council, The Great Alaska Earthquake of 1964:
  Human Ecology Committee, Washington, D.C.: National Academy of Sciences, 1970, pp. 39-51.
- Haas, J. Eugene, Robert W. Kates, and Martyn J. Bowden, Reconstruction Following Disaster, Cambridge, Massachusetts: The MIT Press, 1977.
- Harker, Robert A., and Allen E. Wilmore, "Emergency Evacuation Management: Requirements and Concepts," Los Altos, California: Systan, Inc., 1981.
- Harker, Robert A., "Planner's Guide for Crisis Relocation Training," Palo Alto, California: Center for Planning and Research, 1977.
- Harker, Robert A., and Charlie C. Coleman, "Application of Simulation Training Exercises to Crisis Relocation Planning," Palo Alto, California: Center for Planning and Research, Inc., 1975. (Also available National Technical Information Service AD-A020 835).
- Herman, Roger E., Disaster Planning for Local Government, New York: Universe Books, 1982.
- Hirschberg, Joseph C., Peter Gordon, and William J. Petak, <u>Natural Hazards</u>:

  <u>Socio-Economic Impact Assessment Model</u>, Springfield, Virginia: <u>National Technical Information Service (PB-294 681)</u>, 1978.
- Hisada, Toshihiko, "Preparations for Facing an Earthquake: Earthquake Preparedness of Big Cities in Japan," Tokyo: Kajimo Institute of Construction Technology, 1976.
- Hoeling, Adolph A., Disaster: Major American Catastrophes, New York: Hawthorn Books, 1973.
- Howe, Charles W., "Drought-Induced Problems and Responses of Small Towns and Rural Water Entities in Colorado: "The 1976-1978 Drought," Boulder, Colorado: Colorado State University: Colorado Water Resources Research Institute, 1980.
- Hultaker, Orjan, "Housing Patterns After a Landslide," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, eds. Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 621-634.
- International City Management Association and Federal Emergency Management Agency, "How Prepared Is Your Community for Its Next Emergency: A Manager's Check-list," Local Government Emergency Management: A Practitioner's Workbook, Handbook Series No. 3, Washington, D.C.: ICMA, 1980.
- International Conference of Building Officials, "Factors Which Affect the Role of Building Departments in Earthquake Hazard Mitigation," Whittier, California: 1980.
- Isenberg, J., (ed.), Social and Economic Impact of Earthquakes on Utility Lifelines, New York: American Society of Civil Engineers, 1981.

- Jackson, Edgar L., "Pulic Response to Earthquake Hazard," California Geology, Vol. 30, No. 12, 1977, pp. 278-280.
- Jacobs, Allan, "The Seismic Safety Plan for San Francisco: Its Preparation and Adoption," in P.R.C.-U.S.A. Joint Workshop on Earthquake Disaster Mitigation through Architecture, Urban Planning and Engineering," Beijin, China, November 2-7, 1981, Beijin, China: Office of Earthquakes Resistance, State Capitol Construction Commission of P.R.C., 1982, pp. 217-239.
- Jones, Barclay G., "Disasters and Urban Systems," <u>Journal of Architectural Edu</u>cation, Vol. 33, 1980, pp. 16-18.
- Jones, Barclay G., and Miha Tomazevik, (eds.), "Social and Economic Aspects of Earthquake: Proceedings of the Third Set," Carf., Ithica, New York: Cornell University, Program in Urban and Regional Studies, 1982.
- Kartez, Jack D., "Emergency Planning Implications of Local Governments' Responses to Mt. St. Helens," Boulder, Colorado: University of Colorado, Institute of Behavioral Science, 1982.
- Kates, Robert W., Risk Assessment of Environmental Hazard, SCOPE Report 8, New York: John Wiley and Sons, 1977.
- Kates, Robert W., Risk Analysis of Enviornmental Hazard, SCOPE Report 8, New York: John Wiley and Sons, 1978.
- Kennedy, Will C., "Police Departments: Organization and Tasks in Disaster," American Behavioral Scientist, Vol. 13, 1970, pp. 354-361.
- Kim, John Choon K., and Richard L. Ender, "Earthquake Hazards Mitigation Policy Implementation: The Alaskan Experience," paper presented at the American Society for Public Administration Conference, New York: April 1983. (NSF #8112632).
- Kirijas, Tiberije, "Physical Planning in Seismic Regions," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, (eds.), Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 331-338.
- Kreps, Gary A., "Decision Making Under Conditions of Uncertainty: Civil Disturbance and Organizational Change in Urban Police and Fire Departments,"
  Disaster Research Center Report No. 13, Columbus, Ohio: Ohio State University, Disaster Research Center, 1973.
- Kusler, Jon, Floodplain Regulations and the Courts 1970-1981, Boulder: University of Colorado, Natural Hazards Research and Applications Information Center, 1982.
- Lagadec, Patrick, Major Technological Risk: An Assessment of Industrial Disasters, New York: Pergamon Press, 1982.
- Lord, W. B., "Water Resources Planning: Conflict Management." Water Spectrum Vol. 12, No. 3, Spring 1979.

- Los Angeles (California), Department of City Planning, "Seismic Safety Plan Background Report," City Plan Case No. 24880, Springfield, Virginia:
  National Technical Information Service (PB-258 536).
- Lukko, R., and G. Morton, "Media Coverage of Disaster: Better than Reported Worse than Necessary," Journalism Quarterly, Vol. 55, 1978, pp. 68-72.
- Mader, George G., "Land Use Planning After Earthquakes," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, (eds.), Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 589-606.
- Mader, George G., and Martha L. Blair, "After the Earthquake, A Safer City?" in Proceedings of the Second U.S. National Conference on Earthquake Engineering, Berkeley, California: Earthquake Engineering Research Institute, 1979.
- Mader, George, "Seismic Hazard Mitigation Through Land Use Planning," Portola Valley, California: William Spangle and Associates, Inc., 1980.
- Mann, Dean E., and Alan J. Wyner, "The Responses of Local Governments in California to Seismic Events," Santa Barbara, California: Department of Political Science, University of California, 1977.
- Margerum, Terry, "We're Not Ready for the Big Quake: What Local Governments Can Do," Berkeley, California: Association of Bay Area Governments, 1980.
- Mazmanian, D. A., and J. Nienaber, "Can Organizations Change? Environmental Protection: Citizen Participation and the Corps of Engineers," Washington, D.C.: The Brookings Institution, 1979.
- McLuckie, Benjamin F., "The Warning System in Disaster Situations: A Selective Analysis," Disaster Research Center Report No. 9, Columbus, Ohio: Disaster Research Center, Ohio State University, 1970.
- Mileti, Dennis S., Disaster Relief and Rehabilitation in the United States: A

  Research Assessment, Monograph Series No. 9, Boulder, Colorado: Institute
  of Behavioral Science, University of Colorado, 1975. (Also available
  National Technical Information Service PB-242 976).
- Mileti, Dennis S., Natural Hazard Warning Systems in the United States: A

  Research Assessment, Monograph Series No. 13, Boulder, Colorado: Natural
  Hazards Research and Applications Information Center, University of Colorado,
  1975.
- Mileti, Dennis S., Thomas E. Drabek, and J. Eugene Hass, <u>Human Systems in</u>

  <u>Extreme Environments: A Sociological Perspective</u>, <u>Technology</u>, <u>Environment</u>,
  and Man Monagraph Series No. 21, Boulder, Colorado: Natural Hazards Research and Applications Information Center, University of Colorado, 1975.
- Miller, C. H., "Flood Plain Management: Issues and Alternatives for Congress Office of Technology Assessment," U.S. Congress, Washington, D.C.: 1978.

- Mintier, J. Laurence, and Peter Arne Stomberg, "Seismic Safety at the Local Level: Does Planning Make A Difference?," California Geology, Vol. 36, No. 7, July, 1983, pp. 148-154.
- Morell, David, "Technological Policies and Hazardous Waste Politics in California," Lester and Bowman, (eds.), The Politics of Hazardous Waste Management, 1973, pp. 139-175.
- Morentz, J.W., H. C. Russell, and J. A. Kelly, <u>Practical Mitigation</u>: <u>Strategies</u> for Managing Disaster Prevention and Reduction, Rockville, Maryland: Research Alternatives, Inc., 1982.
- Mitchell, James K., "Coastal Zone Management: A Comparative Analysis of National Programs, in Ocean Yearbook 3, Elisabeth M. Borgese and Norton Ginsburg (eds.), Chicago, Illinois: University of Chicago Press, 1982, pp. 298-319.
- Morton, David R., "A Selected Bibliography of Disaster Planning and Simulation," Boulder, Colorado: Institute of Behavioral Sciences, Natural Hazards Research and Applications Information Centr, University of Colorado, 1981.
- Mushkatel, Alvin, and Tom Kilijanek, "Earthquake Mitigation Policy in Washington and Missouri: A Comparative Analysis," paper presented at the Western Social Science Association Convention, San Diego, California: April 23, 1981.
- Nichols, D. R., and J. M. Buchanan-Banks, "Seismic Hazards and Land Use Planning," in Geology in the Urban Environment, Russell Utgard, Garry M<sup>C</sup>Kenzie, Duncan Foley, (eds.), Minneapolis, Minnesota: Burgess Publishing Company, 1978.
- Nilson, Douglas C., and Linda B. Nilson, "Seismic Safety Planning Strategies:
  Lessons from California," in Earthquakes and Earthquake Engineering: The
  Eastern United States, Assessing the Hazard--Evaluating the Risk, James E.
  Beavers, (ed.), Ann Arbor, Michigan: Ann Arbor Science Publishers, Inc.,
  1981, pp. 1113-1136.
- Nyberg, Folke, et al., "Strategies for Restoring Older Buildings in Seismic Regions," Seattle, Washington: University of Washington, 1984.
- Olson, Richard Stuart, and Douglas C. Nilson, "California's Hazardous Structure Problems: A Political Perspective," California Geology Vol. 36, No. 4, April 1983, pp. 89-91.
- Oppenheim, Irving J., and Robert B. Anderson, "Economic Effects of Transportation System Damage," in <u>Earthquakes and Earthquake Engineering: The Easttern United Sates</u>, Assessing the Hazard--Evaluating the Risk, James E. Beavers, (ed.), Ann Arbor, Michigan: Ann Arbor Science Publishers, Inc., 1981, pp. 563-576.
- Parr, Arnold R., "Group Emergence in Community Crises: A Study of Conditions to the Development of Collective Behavior," Columbus, Ohio: Disaster Research Center, Ohio State University, 9.
- Perkins, J. B., "The Use of Earthquake and Related Information in Regional Planning--What We've Done and Where We're Going," in Proceedings of the Second International Conference on Micronzonation for Safer Construction--Research and Application, San Francisco, California: 1978, pp. 315-322.

- Perry, Ronald W., et al., <u>Evacuation Planning in Emergency Management</u>, Lexington, Massachusetts: Lexington Books, 1981.
- Perry, Ronald W., et al., "Evacuation Decision-Making and Emergency Planning: Report of Preliminary Findings," Seattle, Washington: Battelle Human Affairs Research Center, 1980.
- Petak, William J., and Arthur A. Atkisson, <u>Natural Hazard Risk Assessment and Public Policy: Anticipating the Unexpected</u>, New York: Springer-Verlag, 1982.
- ---- "Planning for Natural Disaster: A Planning Tool," Omaha, Nebraska: Eastern Nebraska Office on Aging, 1975.
- Platt, Rutherford H., "Jackson Flood 1979: Public Policy Disaster," American Planning Association Journal, Spring, 1982, pp. 219-231.
- Prud'Homme, A., "What an Emergency Plan Should Cover: The Key Planning Issues," Los Angeles: Atlantic Richfield Co., 1982.
- Quarantelli, Enrico L., "Disaster Planning: Small and Large: Past, Present, and Future," Article #141, The Ohio State University, Disaster Research Center, 1981.
- Quarantelli, Enrico L., "Some Needed Cross-Cultural Studies of Emergency Time Disaster Behavior: A First Step," <u>Disasters</u>, Vol. 3, No. 3, 1979, pp. 307-314.
- Quarantelli, Enrico L., "Studies in Disaster Response and Planning," Springfield, Virginia: National Technical Information Service, (AD A065523), 1979.
- Quarantelli, Enrico L., "The Vaiont Dam Overflow: A Case Study of Extra-Community Responses in Massive Disasters," <u>Disasters</u>, Vol. 3, No. 2, 1979, pp. 199-212.
- Richards, Peter G., "Questions about Local Authorities and Emergency Planning,"
  Local Government Studies, Vol. 5, No. 3, May/June 1979, pp. 37-42.
- Rose, Adam, "Local Government Emergency Management: An Economic Perspective,"
  Natural Hazards Research Paper, Boulder, Colorado; Institute of Behavioral
  Science, University of Colorado, 1980.
- Rose, Adam, "Mandating Local Government Emergency Services," The Urban Interest, Vol. 2, No. 1, Spring 1980, pp. 65-73.
- Rosenberg, Norman J., (ed.), Drought in the Great Plains: Research on Impacts and Strategies, Littleton, Colorado: Water Resources Publications, 1980.
- Rossi, Peter H., et al., Natural Hazards and Public Choice: The State and Local Politics of Hazard Mitigation, New York: Academic Press, 1982.
- Rubin, Claire B., "Case Studies of Communities Recovering from Natural Disasters: Year ii Final Report," Washington, D.C.: George Washington University, January, 1983.

- Rubin, Claire B., "Managing the Recovery from a Major Natural Disaster," Management Information Science Report, Vol. 14, No. 2, Washington, D.C.: The International City Managment Association, February 1982.
- Rubin, Claire B., "Natural Disaster Recovery Planning for Local Public Officials," Washington, D.C.: Academy for State and Local Government, 1979.
- Saroff, Jerome R., and E. Jack Schoop, "Planning in Anchorage After the Earthquake," <u>Journal of the American Institute of Planners</u>, Vol. 30, 1964, pp. 231-233.
- Scanlon, J., et al., "The Peel Regional Police Force and the Mississauga Evacuation: How a Police Force Reacted to a Major Chemical Emergency," Ottawa, Ontario, Canada: Royal Canadian Mounted Police, 1980. (A Case Study).
- Scott, Stanley, "California Cities and Seismic Safety: Local Officials Need to Give More Attention to Disaster Preparedness," in Western City, August 1983, pp. 6-16.
- Sinko, James W., and L. D. Bryson, "The Recovery of Cities From Jamor Disaster: A Conceptual Model," Menlo Park, California: Stanford Research Institute, October, 1970.
- Spangle, W., and Associates, Inc., Land Use Planning After Earthquakes, Portola Valley, California: William Spangle and Associates, 1980.
- Stephens, Lynn H., and Stephen J. Green, (eds.), <u>Disaster Assistance</u>, <u>Appraisal</u>, <u>Reform and New Apporaches</u>, New York: New York University Press, 1979.
- Tubbesing, Susan K., (ed.), <u>Natural Hazards and Data Resources: Uses and Needs</u>, Monograph Series No. 27, Boulder, Colorado: Institute of Behavioral Science, University of Colorado, 1979.
- Turner, Barry A., "The Organizational and Inter-Organizational Development of Disasters," Administrative Science Quarterly, Vol. 21, No. 3, 1976, pp. 378-397.
- U.S. Comptroller General, "Areas Around Nuclear Facilities Should be Better Prepared for Radiological Emergencies," Washington, D.C.: General Accounting Office, 1979.
- U.S. Comptroller General, "Federal Disaster Assistance: What Should the Policy Be?," (PAD-80-39), Washington, D.C.: General Accounting Office, 1980.
- U.S. Comptroller General, "Improved Administration of Federal Public Disaster Assistance Can Reduce Costs and Increase Effectiveness," Washington, D.C.: General Accounting Office, July 23, 1982.
- U.S. Comptroller Generals, "States Can Be Better Prepared to Respond to Disaster," Washington, D.C.: General Accounting Office, March 31, 1980.
- U.S. Department of Interior, "Goals, Strategies, Priorities, and Tasks of a National Landslide Hazard Reduction Program," 1981.

- U.S. General Accounting Office, Community and Economic Development Division,
  "States Can Be Better Prepared to Respond to Disasters." Springfield,
  Virginia: National Technical Information Service (PB80-165178), 1980.
- U.S. General Accounting Office, Report to the Chairman and Ranking Minority Member, Senate Committee on the Budget, U.S. Senate: "Federal Disaster Assistance--What Should the Policy Be?," Gaithersburg, Maryland: 1980A.
- U.S. <u>Library of Congress</u>, Congressional Research Service, "Background and Status of Executive Order 11490: The Assignment of Emergency Preparedness Functions," by Harold C. Relyea, Washington, D.C.: U.S. Government Printing Office, 1980.
- U.S. National Institutes of Health, National Institute of Mental Health, "Crisis Intervention Programs for Disaster Victims: A Sourcebook and Manual for Smaller Communities," by Kathleen J. Tierney and Barbara Baisden, Washington, D.C.: U.S. Government Printing Office, 1979.
- University of Southern California, College of Continuing Education and School of Public Administration, "Emergency Disaster Preparedness in Los Angeles County: A Multi-Jurisdictional Dilemma," Springfield, Virginia: National Technical Information Service (AD-A081 440), 1979.
- Wallerstein, M. B., "New Organizational Approaches for Speeding Food Relief in International Disasters-The Potential Contribution of Technology," <u>Disasters</u>, Vol. 4, No. 1, 1980, pp. 73-82.
- Warheit, George J., and Russell R. Dynes, "The Functioning of Established Organizations in Community Disasters," Disaster Research Report No. 1, Columbus, Ohio: Disaster Research Center, Ohio State University, 1968.
- Weller, J. M., "Organizational Innovation in Anticipation of Crisis," Disaster Research Report No. 14, Columbus, Ohio: Disaster Research Center, Ohio State University, 1974.
- Wenger, Dennis E., and Jack M. Weller, "Disaster Subcultures: The Cultural Residues of Community Disasters," Disaster Research Center Preliminary Paper 9, Columbus Ohio: Disaster Research Center, Ohio State University, 1973.
- Wenger, Dennis E., et al., "It's A Matter of Myths: An Empirical Examination of Individual Insight Into a Disaster Response,"
  No. 1, 1975, pp. 33-46.

  Mass Emergencies, Vol. 1,
- Westgate, Kenneth, "Land-Use Planning, Vulnerability and the Low-Income Dwelling," Disaster, Vol. 3, No. 3, 1979, pp. 244-248.
- White, Gilbert F., and J. Eugene Hass, <u>Assessment of Research on Natural Hazards</u>, MIT Press Environmental Studies Series, Cambridge, Massachusetts: MIT Press, 1975.
- Whittow, John, <u>Disasters: The Anatomy of Environmental Hazards</u>, London, England: Alan Lane/Penguin Books, Ltd., 1980.

- Whyte, Anne V., and Ian Burton, (eds.), Environmental Risk Assessment, SCOPE Report No. 15, Chichester, England: John Wiley and Sons, 1980.
- Wiggins, John H., "Balances Risk Analysis," <u>Journal of Architectural Education</u>, Vol. 33, No. 4, 1980, pp. 6-8.
- Wiggins, John H., "Earthquake Safety in the City of Long Beach Based on the Concept of Balanced Risk," in <a href="Earthquake Risk: Conference Proceedings">Earthquake Risk: Conference Proceedings</a>, Sacramento, California: Joint Committee on Seismic Safety to the California Legislature, 1971, pp. 61-66.
- Wiggins, John H., et al., "Methodology for Hazard Risk Evaluation of Buildings," Technical Report No. 73-367773, Redondo Beach, California: J. H. Wiggins Co., 1973.
- Wiley, Christopher J., "Report on State Agency Program for Seismic Safety," Sacramento, California: Seismic Safety Commission, 1979.
- Wolensky, Robert P., "How Do Community Officials Respond to Major Catastrophes?," Disasters, Vol. 1, No. 4, 19771, pp. 272-274.
- Wolfe, Myer R., "Urban Scale Vulnerability: Some Implications for Planning," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, (eds.), Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 307-322.
- Woodward-Clyde Consultants, "Assessment of Public Policy Regarding Lifelines and Critical Facilities in California," San Francisco, California: 1980.
- Worthley, John A., and Richard Torkelson, "Managing the Toxic Waste Problem: Lessons from the Love Canal," <u>Administration and Society</u>, Vol. 13, August, 1981, pp. 145-160.
- Worthley, John A., and Richard Torkelson, "Intergovernmental and Public-Private Sector Relations in Hazardous Waste Management: The New York Example,"

  The Politics of Hazardous Waste Management, Lester and Bowman (eds.),

  1983, pp. 102-111.
- Wright, James D., and Peter H. Rossi, (eds.), Social Science and Natural Hazards, Cambridge, Massachusetts: ABT Associates, Inc., 1981.
- Wright, James D., et al., <u>The Apathetic Politics of Natural Disasters</u>, Amherst, Massachusetts: University of Massachusetts, Social and Demographic Research Institute, 1979.
- Wright, James D., et al., After the Clean-up: Long-Range Effects of Natural

  <u>Disasters</u>, Contemporary Evaluation Research, Vol. 2, Beverly Hills, California: Sage Publications, Inc., 1979.

- Wyner, Alan J., "Implementing Seismic Safety Policy: The Case of Local Governments in California," <u>Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference</u>, Barclay G. Jones and Miha Tomazevic, (eds.), Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 287-296.
- Zelenkov, Branko, "Financing the Losses and the Risks Due to Earthquakes," Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, (eds.), Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 565-572.

#### COURSE OUTLINE

#### Required Texts:

- (1) Natural Hazards and Public Choice: The State and Local Politics of Hazard Mitigation. Peter Rossi, James Wright, Eleanor Weber-Burdin, Academic Press, New York, 1982.
- (2) Natural Hazard Risk Assessment and Public Policy: Anticipating The Unexpected. William Petak and Arthur Atkisson, Springer-Verlag, New York.
- (3) Reconstruction Following Disaster. Eugene Haas, Robert Kates, Martyn Bowden, University of Colorado (IBS #6), Boulder, CO, 1977.
- (4) General Accounting Office, "National Flood Insurance," (GAO/RCED-82-105), August, 1980.
- (5) General Accounting Office, "National Flood Insurance," (GAO/RCED-83-53), January, 1983.
- (6) General Accounting Office, "Improved Administration of Federal Public Disaster Assistance Can Reduce Costs and Increase Effectiveness," 1982.
- (7) Economics of Natural Disasters: Implications for Federal Policy.

  Douglas Dacy and Howard Kunreuther, Free Press, New York, 1979.
- (8) Will Local Government Be Liable for Earthquake Losses? Berkeley, CA, Association of Bay Area Governments, 1979.

#### Recommended Readings:

- (1) American Land Planning Law: Cases and Materials. N. Williams, 1979.
- (2) Disaster Planning for Local Government. Roger E. Herman, Universe Books, New York, 1982.
- (3) Geological Hazards, Resources and Environmental Planning. Gary Griggs and John Gilchrist, Wadsworth Publishing Co., 1983.
- (4) Conquering Disaster. Thomas Drabek and William Key, 1984.
- (5) Organizations and Environments. Howard Aldrich, Prentice Hall, New York, 1979.
- (6) Alternatives to Regulation: Managing Risks to Health, Safety and the Environment. Michael Baram, Lexington Books, Lexington, MA, 1981.

- (7) Environment, Pitfalls of Hazard Management." Thomas Bick and Roger Kasperson, 1978.
- (8) "Patterns of Interorganizational Relationships." Richard Hall, et al., Administrative Science Quarterly, 22 (Sept. 1977), pp. 457-474.
- (9) Disaster Insurance Protection. Howard Kunreuther, et. al., Wiley Interscience, New York, 1978.
- (10) "Disaster Planning: Small and Large." E. L. Quarantelli, Disaster Research Center, Ohio State University, Columbus, OH, 1981.
- (11) "Managing the Recovery from a Natural Disaster." Claire Rubin, Washington, D.C.: Management Information Service Report, Vol. 14, No. 2, International City Management Association, (Feb. 1982).
- (12) A Primer for Preparedness for Acute Chemical Emergencies, K.J. Tierney, Disaster Research Center, Ohio State University, Columbus, OH.

#### Introduction:

This course is designed for graduate-level study leading towards a masters degree in public administration (MPA). Although designed for graduate-level study, this course can be modified as appropriate to complement undergraduate programs in public administration.

Intended as a course designed to provide an understanding of financial and liability issues in emergency management, the purpose of this course is to provide a point of departure for understanding the issues and policy decisions that are associated with major natural and technological disasters.

As a graduate-level course, an appropriately thorough examination of research relevant to financial and liability management strategies in emergency management is expected.

The required and recommended readings are intended to provide an understanding of:

- 1. Key elements in financial management;
- 2. Legal issues and liability consequences of decisions and policies;
- 3. Case studies on litigation involving emergency management; and,
- 4. Understanding financial management and cost recovery in disasters.

#### Objectives:

The primary course objectives are to (1) identify the key managerial strategies used successfully by emergency managers to maintain agency integrity and improve preparedness; (2) examine the similarities and differences in strategies used by emergency managers in urban and rural areas; (3) review the communication, cooperation and coordination mechanisms used among agencies; (4) compare strategies that are found to be most successful; (5) examine the legal consequences of disasters; (6) assess the economic outcome of disaster-impacted communities; and, (7) analyze selected case studies which illustrate the key concepts and effective strategies. Knowledge of the above would improve the administrative response by governments during emergencies and reduce the subsequent loss of life and property.

#### Format:

This course can be used separately or as a part of a series of classes with appropriate modification.

Ten intensive seminar sessions of two-to-four hours' duration comprise this course.

A comprehensive bibliography citing relevant literature which addresses major policy issues and decisions surrounding intergovernmental relations and emergency management is provided to assist seminar participants in the development of written assignments. Also, the bibliography provides a basic point of departure for further research on emerging intergovernmental relations policy issues or specific policy decisions. The on-going identification and assessment of new literature is encouraged.

Prior to each seminar session, participants are required to complete all assigned readings. Additionally, participants are required to prepare a two-to-five page summary of the assigned readings which either the individual or the instructor selects from the relevant bibliography. These papers are to be duplicated and disseminated to both seminar participants and the instructor. Each participant is expected to present an overview of relevant findings and be prepared to defend salient points addressed.

In addition to the above requirements, each seminar member is required to develop a fifteen-to-twenty page comprehensive research paper on either an emerging policy issue or a specific policy decision. The specific focus of the research paper will be determined by the instructor. The paper is to be analytical and not solely narrative or speculative. As a minimum, the final research paper should:

- 1. Contain a clear problem statement;
- Identify key actors (e.g. proponents and opponents) and their positions;
- 3. Provide an outline of the alternatives and consequences of the policy issue/decision;
- 4. Contain an assessment of decisions made; and,
- 5. Assess critically the degree of success in implementing the policy issue or decision.

After initial lectures, the instructor serves primarily as a discussion leader and resource person. Depending on appropriateness and availability of resources, films, guest speakers, simulations, case studies and field trips may be used to complement instruction.

#### Evaluation:

Performance evaluation of seminar participants shall be based on the quality of (a) written assignments; (b) weekly presentations summarizing reviews of

selected or assigned literature; and, (c) the comprehensive research paper and its defense during the final seminar session.

Evaluation criteria for assessing written assignments include (a) the quality of research design; (b) writing; (c) organization; and, (d) presentation/defense of research papers. A final factor used in assessing performance is the quality of each person's participation in seminar discussions.

#### Course Content

# Session 1. Introduction of Public Management and Emergency Management

Readings: Rossi, et al.: Chapter 1: Policy, Politics and Natu-

ral !lazards

Chapter 2: The Study Design

Petak and

Atkisson: Chapter 1: Anticipating the Unexpec-

ted and Public Policy Pro-

blems

Chapter 2: Natural Hazards Character-

istics and Mitigation

Film: Countdown to Disaster

Assignment: Using the bibliography provided or other recommended readings, describe the various approaches the authors you select have taken in describing emergency management policy

lect have taken in describing emergency management policy or identify a major policy issue in emergency management using the bibliography as a point of departure. In examining these issues discuss (1) history of the issue; (2) who is affected; (3) what existing policy is relevant and what alternatives are taken; and (4) what tradeoffs are reflected in the policies made and what assumptions about the premises are made, such as what is the "proper role of government."

Write a brief paper and be prepared to defend and discuss significant findings at the next scheduled seminar session.

# Session 2. Setting Priorities, Perceptions and Approaches to Emergency Management

Readings: Rossi, et al.: Chapter 3: How Important are Hazard

Problems

Chapter 4: Elite Support Levels for

Federal Disaster Policy

Alternatives

Petak and Atkisson: Chapter 3: Public Policy Approaches

to Management of Hazards

General Accounting Office:

"Federal Disaster Assistance: What Should the

Policy Be?"

Film: The National Emergency Training Center

Assignment: Select an emergency plan that exists in your community or another community and describe its format, content, alternatives and management strategies. How successful do you think its management strategies are and how is it integrated with other levels of government?

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

## Session 3. Risk Assessment and Public Reaction

Readings: Rossi, et al.: Chapter 5: Popular Assessments of

Hazard Policy: The Case of California's Nine Com-

munities

Petak and Atkisson: Chapter 4: Methodologies for Hazard

Analysis

Haas, Kates and

Bowen: Chapter 2: Policy Issues Influencing

Reconstruction

Film: The Case of Love Canal and FEMA

Assignment: Review the literature and write a paper on what the public reaction is to planning for emergencies, responding to emergencies and opinions about emergency plans.

Be prepared to discuss and defend significant findings at the next scheduled seminar session.

# Session 4. Economic Considerations in Emergency Management

Readings: Rossi, et al.: Chapter 6: Elite Appraisal of the

National Flood Insurance

Act of 1968. (State vs.

Local Interests)

Petak and Atkisson: Chapter 5: Hazard Exposure and Loss

Analysis--Cost Escalations

in Catastrophic Losses

Chapter 6: Hazard Mitigation Costs

and Impacts (Loss Reduction Analysis, Cost Analysis, Economic Payoffs)

General Accounting Office:

"National Flood Insurance,

1982"

General Accounting Office:

"National Flood Insurance,

1983"

General Accounting Office:

"Improved Administration of Federal Public Disaster Assistance Can Reduce Costs and Increase Effec-

tiveness, 1982"

Assignment: Option 1: Write a paper outlining the costs of emergency management or loss analysis and describe the methodology of arriving at your calculations.

Option 2: Review the operations of the Federal Insurance Administration (National Flood Insurance Act of 1968) and the economic impact it has on communities experiencing an emergency. One of the issues you may want to address is should an entire county or region be declared a disaster area because one part of it suffers some type of loss? What implications does this have on the federal and state governments? What impact does this have on the future of federal matching funds or state-local contribution for sharing the costs of reconstruction?

Be prepared to discuss and defend significant findings at the next scheduled seminar session.

#### Session 5. Economics of Disaster and Cost Recovery

Readings: Dacy and Kunreuther: Economics of Natural Dis-

asters: Implications for

Federal Policy

Petak and Atkisson: Chapter 7: Catastrophic Hazard Occurrences

Film: The Killing Ground

Assignment: With the assistance of your instructor, review the cost consequences of a major disaster and apply the use of national flood insurance as an example. Describe how the program works, and how it could be improved.

Session 6. Interest Groups Impact on Management and State-Local Legislative Policies

Readings: Rossi, et al.: Chapter 7: Patterns of Interest and

Power in Nonstructural Hazard Mitigation Politics

in Local Communities

Chapter 8: Patterns of Group Activity

and Power in State Hazard Mitigation Legislation

Petak and Atkisson: Chapter 8: Policy Makers, Stakehold-

ers, and Candidate Policy

Problems

Assignment: Identify the key interest groups in your community that have been, or are likely to be key participants(s) in policy making in emergency management or responders to emergencies that may take place in your community. You may wish to select a community emergency response plan and review it along with whom the key participants were in its development and application.

Write a brief paper and be prepared to discuss and defend significant findings at the next scheduled seminar session.

Session 7. Legal Aspects of Emergency Management and Constraints in Management Policy

Readings: Petak and Atkisson: Chapter 9: Constraints on Public Man-

agement

Margerum: All: Will Local Government Be

Liable for Earthquake

Losses?

Recommended: Griggs and

Gilchrist:

Chapter 14: Environmental Law and

Impact Analysis

Williams:

American Planning Law

Assignment: Review case litigation (and cost consequences if available) of government entities and individual policy makers impacted by lawsuits over the handling of an emergency. You may want to use a case format for presentation of the title and citation and year, facts or background, legal questions(s), court decision or holding, opinion of the court and summary comment. Select at least four cases. Be prepared to discuss the policy consequences during the presentation.

# Session 8. Management Alternatives and Policy Alternatives

Readings: Petak and Atkisson: Chapter 10: Policy Alternatives

Assignment: Dividing the members in the seminar, each two or group select a case or review a policy alternative at the (1) federal, (2) state, (3) local government, or (4) private sector as to handling of emergencies and options.

> Be prepared to discuss and defend significant findings at the next scheduled seminar session.

#### Session 9. Reconstruction Management

Readings: Haas, Kates and

Bowen:

The Pace of Reconstruction Chapter 1: Chapter 2: Issues in Reconstruction Chapter 3: Re-establishing Homes and

Inhe

Chapter 5: Alternatives

Summary and Recommendations Chapter 6:

Assignment: Prepare for presentation of final research paper.

Session 10.

Assignment:

Activity:

Presentation of final research papers with findings.

#### **BIBLIOGRAPHY**

- Aaronson, S., "The Social Cost of Earthquake Prediction," New Scientist, Vol. 73, 1977, pp. 634-636.
- Abernethy, James J., "Teaching Hazards Mitigation," <u>Journal of Architectural</u> Education, Vol. 33, No. 4, 1980, pp. 43-45.
- Aldrich, Howard E., Organizations and Environments, Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1979, pp. 26-74.
- Alquist, Alfred E., "Government's Response to Risk" in <u>Earthquake Risk: Conference Proceedings</u>, Sacramento, California: Joint Committee on Seismic Safety to the California Legislature, 1971, pp. 35-38.
- Anderson, D. R., "The National Flood Insurance Program: Problems and Potential,"
  Journal of Risk and Insurance, Vol. 41, 1974 pp. 579-599.
- Association of Bay Area Governments, "Liabilities of Local Government for Earthquake Hazard Reduction," Berkeley, California: 1978.
- Association of Bay Area Governments, "Earthquake Intensity and Related Costs in the San Francisco Bay Area," Berkeley, California: 1980.
- Association of Bay Area Governments, "Legal References on Earthquake Hazards and Local Government Liability," Berkeley, California: 1978.
- Atkisson, Arthur A. and William J. Petak, "Seismic Safety Policies and Practices in U.S. Metropolitan Areas: A Three City Case Study," Working Report No. 80-1373-2, Redondo Beach, California: J. H. Wiggins Co., 1981.
- Baker, Douglas A., "Disasters and Disaster Laws," Ohio Legislative Service Commission Staff Research Report No. 120, Columbus, Ohio: Ohio Legislative Service Commission, 1975.
- Baker, Earl J. and Joe Gordon McPhec, Land Use Management and Regulation in Hazardous Areas, Boulder, Colorado: University of Colorado, 1975.
- Baker, Earl J., "Public Attitudes Toward Hazard Zone Controls," Journal of the American Institute of Planners, Vol. 43, No. 4, 1977, pp. 401-408.

- Baker, Lawrence C., Jr., "Availability and Desirability of Earthquake Insurance," in Earthquake Risk: Conference Proceedings. Sacramento, California: Joint Committee on Seismic Safety to the California Legislature, 1971, pp. 31-34.
- Bancroft, Charles, "Earthquake: Not If--But When?--and Where?", Journal of Insurance, Vol. 43, 1982, pp. 2-9.
- Baram, Michael S., "Alternatives to Regulation: Managing Risks to Health, Safety and the Environment," Lexington, Massachusetts: Lexington Books, 1981.
- Brown, J. and R. Lind, "An Economic Impact Analysis of the National Flood Insurance Program," Washington, D.C.: Federal Insurance Administration, 1976.
- Buffington, P. G., "Earthquake Insurance in the United States A Reappraisal,"
  Bulletin of the Seismological Society of America, Vol. 51, 1961, pp. 315-329.
- Dacy, Douglas C. and Howard Kunreuther, The Economics of Natural Disasters: Implications for Federal Policy, New York: Free Press, 1979.
- Eckstein, Harry, "Authority Relations and Governmental Performance: A Theoretical Framework," Princeton University: Center of International Studies, 1968.
- Evans, John G., "Attorney's Guide to Earthquake Liability," Berkeley, California: Association of Bay Area Governments, 1979.
- Federal Emergency Management Agency, "Disaster Operations--A Handbook for Local Governments," (CPG 1-6), Washington, D.C.: (July 1981).
- Federal Emergency Management Agency, "An Assessment of the Consequences and Preparations for a Catastrophic California Earthquake: Findings and Actions Taken," Washington, D.C.: 1981.
- Federal Emergency Management Agency, "Integrated Emergency Management System," a series of issuances, beginning in September, 1983. Available from Office of State and Local Programs and Support at FEMA, Central and Regional Offices.
- Field, Robert I., "Patterns in the Laws on Health Risks," Journal of Policy Analysis and Management, Vol. 1, (Winter 1982), pp. 257-260.
- Florida, Department of Community Affairs, Bureau of Disaster Preparedness, and Florida State University, "Hurricane Hazard Mitigation at the Local Government Level: The Roles of the Building Codes and Other Development Management Strategies," Tallahassee, Florida: 1980.
- Fischoff, B. et al., "Approaches to Acceptable Risk," Decision Research, A Branch of Perceptronics. Eugene, Ohio: 1980.
- Frame, Hess, Nielsen, "Techniques of Organizational Change," San Diego, California: University Associates, 1982.
- Francaviglia, Richard V., "Xenia Rebuilds: Effects of Pre-disaster Conditioning on Post-Disaster Redevelopment," American Institute of Planners Journal, No. 44, January, 1978.

- Friesma, H. Paul, ed., Aftermath: Community Impacts of Natural Disasters, Beverly Hills, California: Sage Pubications, 1979.
- Haas, J. Eugene and Dinnis S. Mileti, "Socio-Economic Impact of Earthquake Prediction on Government, Business and Community: Research Findings, Issues, Implications for Organizational Policy," Boulder, Colorado: Institute of Behavioral Science, University of Colorado, 1976.
- Haas, J. Eugene, R. W. Kates, and M. Bowden, Reconstruction Following Disaster, Cambridge, Massachusettss: The MIT Press, 1977.
- Hirschberg, Joseph C., Peter Gordon, and William J. Petak, "Natural Hazards: Socio-Economic Impact Assessment Model," Springfield, Virginia: National Technical Information Service (PB-294 681), 1978.
- Hughes, Thomas H., "Risks of Earth Movement and Liability that Results Therefrom,"

  Earthquake Risk: Conference Proceedings, Sacramento, California: Joint
  Committee on Seismic Safety to the California Legislature, 1971, pp. 71-76.
- Kartez, Jack D., "Emergency Planning Implications of Local Governments' Responses to Mt. St. Helens," Boulder, Colorado: Institute of Behavioral Science, University of Colorado, 1982.
- Kates, R. W., Risk Assessment of Environmental Hazard, Scope Report 8, New York: John Wiley and Sons, 1977.
- Kunreuther, Howard, Recovery from Natural Disasters: Insurance or Federal Aid?,
  American Enterprise Institute for Public Policy Research, Evaluative Studies,
  Vol. 12, Washington, D.C.: American Enterprise Institute for Public Policy
  Research, 1973.
- Kunreuther, Howard, "Societal Decision Making for Low Probability Events: Descriptive and Prescriptive Aspects," Working Paper No. 80-164, Laxenburg, Austria: International Institute for Applied Systems Analysis, 1980.
- Kunreuther, Howard, et al., <u>Disaster Insurance Protection</u>: <u>Public Policy Lessons</u>, New York: Wiley-Interscience Publication, 1978.
- Kunreuther, Howard, and Paul Slovic, "Economics, Psychology and Protective Behavior," American Economic Review, Vol. 68, No. 2, 1978, pp. 64-69.
- Kunreuther, Howard, et al., An Interactive Modeling System for Disaster Policy
  Analysis, Monograph Series No. 26, Boulder Colorado: Natural Hazards
  Research and Applications Information Center, University of Colorado, 1978.
- Kusler, Jon, Floodplain Regulations and the Courts 1970-1981, Boulder, Colorado: University of Colorado, Natural Hazards Research and Applications Information Center, 1982.
- J. H. Wiggins Co., "Problems and Issues Associated with Use of Insurance Systems to Mitigate the Impact of Future Earthquake Losses within the United States," Technical Report No. 80-1388-1, Redondo Beach, California: J. H. Wiggins Co., 1980.

- Lagadec, Patrick, Major Technological Risk: An Assessment of Industrial Disasters, New York: Pergamon Press, 1982.
- Lave, L., "Risk, Safety and the Role of Government," in <u>Perspectives on Benefit</u>
  Risk Decision Making, report of a Colloquium Conducted by the Committee on
  Public Engineering Policy, Washington, D.C.: National Academy of Engineering,
  1971.
- Lester, James P., et al., "Hazardous Wastes, Politics, and Public Policy: A Comparative State Analysis," <u>Western Political Quarterly</u>, Vol. 36 (June 1983), pp. 257-285.
- Lord, W. B., "Water Resources Planning: Conflict Management," Water Spectrum, Vol. 12, No. 3, (Spring 1979).
- Lowrance, William W., Of Acceptable Risk, Los Altos, California: William Kaufman, Inc., 1976.
- Margerum, Terry, "Earthquake Hazards and Local Government Liability: Final Report," Springfield, Virginia: National Technical Information Service, (PB80-116 924), 1979.
- Margerum, Terry, "Will Local Governments Be Liable for Earthquake Losses: What Cities and Counties Should Know About Earthquake Hazards and Local Government Liability," Springfield, Virginia: National Technical Information Service (PB80-157 308), 1979.
- Morentz, J. S., H. C. Russell, and J. A. Kelly, "Practical Mitigation: Strategies for Managing Disaster Prevention and Reduction," Rockville, Maryland: Research Alternatives, Inc., 1982.
- National Governors' Association, "Hazard Mitigation: Strategies for Managing Disaster Prevention and Reduction," Washington, D.C.: 1981.
- National Governors' Association, "Comprehensive Emergency Management: A Governor's Guide," Washington, D.C.: National Governors' Association, 1979.
- National Governors' Association, "National Emergency Assistance Programs-A Governor's Guide," Vol. III, Washington, D.C.: National Governors' Association, Center for Policy Research, 1979.
- Olson, Robert A., "The California Seismic Safety Commission, 1975-80: Public Policy and a Practitioner's Observations," in Social and Economic Aspects of Earthquake: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, eds., Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 275-286.
- Regens, James L., Thomas M. Dietz, and Robert W. Rycroft, "Risk Assessment in the Policy-Making Process: Environmental Health and Safety Protection," in Public Administration Review, Vol. 43, No. 2 (March/April 1983), pp. 137-145.
- Reitherman, Robert, "Insurance Implications of Multi-Hazard Reduction," Washington, D.C.: American Institute of Architecture Research Corporation, 1980.

- Rose, Adam, "Local Government Emergency Management: An Economic Perspective,"
  Natural Hazards Research Paper, Boulder, Colorado: University of Colorado,
  Institute of Behavioral Science, 1980.
- Rose, Adam, "Mandating Local Government Emergency Services," The Urban Interest, Vol. 2, No. 1. (Spring 1980), pp. 65-73.
- Rossi, Peter H., et al., Natural Hazards and Public Choice: The State and Local Politics of Hazard Mitigation, New York: Academic Press, 1982.
- Rubin, Claire B., "Natural Disaster Recovery Planning for Local Public Officials," Columbus, Ohio: Washington, D.C.: Academy for Contemporary Problems, or FEMA (MP-85), 1979.
- Rubin, Claire B., "Managing the Recovery from a Natural Disaster," Management Information Service Report, Vol. 14, No. 2, (February 1982) pp. 1-14, Washington, D.C.: International City Management Association, 1982.
- Rubin, Claire B., "Case Studies of Communities Recovering from Natural Disasters: Year II Final Report," Washington, D.C.: George Washington University, (Jan. 1983).
- Rubin, Claire B., "A Selected Bibliography of Natural Disaster Recovery Literature for State and Local Officials," <u>Contemporary Problems</u>, Arlington, Virginia: The Natural Disaster Resource Referral Service, 1983.
- Taylor, Alan J., "Assessment of Victim Needs," Disasters, Vol. 3, No. 1, 1979, pp. 24-31.
- Texas, Department of Public Safety, Emergency Services, "Manual for Local Government Operations," 1984.
- Torry, William I., "Disasters, Societal Risks and Interorganizational Stresses," Berkeley, California: University of California, 1978.
- U.S. General Accounting Office, "Federal Disaster Assistance: What Should the Policy Be?" (PAD-80-39), Gaithersburg, Maryland: 1980.
- U.S. General Accounting Office, Report of the Comptroller General, "States Can Be Better Prepared to Respond to Disasters," Gaithersburg, Maryland: 1980.
- Whyte, Anne V., and Ian Burton, eds., <u>Environmental Risk Assessment</u>, SCOPE Report No. 15, Chichester, England: John Wiley and Sons, 1980.
- Wiggins, John H., "Balanced Risk Analysis," <u>Journal of Architectural Education</u>, Vol. 33, No. 4, 1980, pp. 6-8.
- Woodward-Clyde Consultants, "Assessment of Public Policy Regarding Lifelines and Critical Facilities in California," San Francisco, California: 1980.
- Worthley, John A., and Richard Torkelson, "Managing the Toxic Waste Problem: Lessons from the Love Canal," Administration and Society, Vol. 13, (August 1981), pp. 145-160.

- Wright, James D., et al., After the Clean-up: Long-Range Effects of Natural

  Disasters, Contemporary Evaluation Research, Vol. 2, Beverly Hills, California:

  Sage Publications, Inc., 1979.
- Zelenkov, Branko, "Financing the Losses and the Risk Due to Earthquake," in Social and Economic Aspects of Earthquakes: Proceedings of the Third International Conference, Barclay G. Jones and Miha Tomazevic, eds., Ithaca, New York: Program in Urban and Regional Studies, Cornell University, 1982, pp. 565-572.

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